



Department for
Communities and
Local Government

Housing Standards Review

Illustrative Technical Standards Developed by the Working
Groups

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The proposals in this technical annex document have been assembled by the working groups and are illustrative, to inform debate. They are not Government policy.

Standard 1: accessibility

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Introduction

1. An important aim of the National Planning Policy Framework is that housing development should take account of current and future demographic trends, market expectations and the needs of a wide range of people, including families with children, older people and disabled people.
2. This new Accessibility Standard, proposed by the working group, seeks to coordinate, simplify and update current accessibility standards into a single three tier set of requirements applicable to new homes of any tenure.
3. The proposals in both the consultation document and this technical annex document have been assembled by the working groups and are illustrative, to inform debate during this consultation. They are not Government policy.
4. The requirements are described at three distinct performance levels that provide increasing benefit in terms of accessibility. The three levels are as follows:
 - Level 1 of the Accessibility Standard represents a potential future version of Part M of the Building Regulations¹. Level 1 homes will provide adequate accessibility for most people, including many older people, and basic visitor access for people who use wheelchairs. This section also outlines, for initial consultation, how Part M could potentially be adjusted to ensure it aligns seamlessly with levels 2 and 3. Any such potential changes will of course be themselves subject to full regulatory impact assessment and consultation, if taken forward.
 - Level 2 of the Accessibility Standard represents an intermediate accessible and adaptable housing standard as an alternative to such standards as Habinteg housings Associations' Lifetime Homes Standard. As the intermediate accessibility standard, it will usually be appropriate for a proportion of new homes. Level 2 homes will provide adaptability as well as improved accessibility for everyone; making them suitable for the majority of older people and many part-time wheelchair users while also helping families with young children and buggies. They will also provide good visitor access for people who use wheelchairs.
 - Level 3 of the Accessibility Standard represents a revised version of the Wheelchair Housing Design Guide, 2nd Edition 2006, written by Habinteg Housing Association with Stephen Thorpe. As the highest tier it will be appropriate for a small but important proportion of new homes. Level 3 homes will provide very good accessibility for most people, including the majority of wheelchair users. Some disabled people will continue to need

¹ Refer to consultation document – any future changes to Part M of the building regulations will be subject to full regulatory Impact assessment and further full public consultation.

larger homes with additional features but these will normally be commissioned, designed and built on a bespoke basis.

5. The proposed three levels of this access standard set are directly related to the three levels of the space standards also proposed for consultation by the working groups. If the Government decides to proceed with any of the space propositions (or higher access standards), application of higher levels of space standards would be limited to particular circumstances, for instance where the need for higher accessibility standards could be robustly evidenced.
6. In some specific areas, the Level 3 requirements distinguish between wheelchair accessible housing, where it is reasonably certain that the first occupants will include a wheelchair user, and wheelchair adaptable housing, where the initial occupants are not known. In design terms, the intention is that where layouts and components are easy to change at a future date, it is not necessary to comply with all of the features needed for wheelchair access at the outset. For example, in WC/cloakrooms and bathrooms, although the space is required from the start, initial layouts need only meet the requirements for Level 2, provided that it is clearly demonstrated that these can be easily modified to provide a wheelchair accessible layout as and when required.
7. Unless otherwise stated, the Level 3 requirements apply to both wheelchair accessible and wheelchair adaptable housing.

How the requirements are set out

8. Each section begins with any requirements that apply to all new housing. Each section begins with any requirements that apply to all new housing (referred to as being 'all levels') at all levels – effectively, stating common criteria relevant to levels 1, 2 and 3 (and which are typically included in existing regulations such as Part M) rather than repeating them in relation to each particular level of performance. The remaining requirements of each section are described separately for Levels 1, 2 and 3. Definitions of commonly used terms such as 'clear opening width' are standardised in a glossary at Annex B1 and the words and phrases included in the glossary are underlined within the text. Diagrams that amplify and illustrate the written requirements are included at Annex C1 and example WC and bathroom layouts at Annex D1 together with a table of typical provision for a range of dwellings.

Part I: Approach Routes, Communal Entrances and Communal Facilities

1.0 Approach routes

SCOPE:

9. This section covers any path, lobby, hallway, corridor, access gallery, podium or other space, whether internal or external, which forms part of the approach route to the main private entrance of the dwelling. Where step-free access cannot reasonably be provided to the main entrance, but can be achieved to another suitable entrance, the requirements of this section should be extended to include the approach route to that entrance.
10. The approach route to a house will usually mean external areas within the curtilage of the dwelling; typically the 'garden gate', where one is provided, the 'garden path', and any other path or driveway leading from the parking space (which may be a garage or car-port) to the main private entrance (the 'front door').
11. The approach route to a flat, or other dwelling served by a communal entrance, will include all parts of the common circulation system; starting from the junction with the public realm (typically 'the pavement') and continuing via the main communal entrance to the individual private entrance.
12. It also covers the route between any parking area specifically intended for residents (including underground and undercroft provision), and the main communal or private entrance. Similarly, the approach route extends to and from any communal facilities intended for residents. This includes shared gardens, terraces, balconies and play areas, refuse, recycling and cycle stores but does not extend to plant rooms or service areas.
13. Communal entrances and other doorways and openings located along the approach route between the main communal entrance and the main private entrance, are dealt with in Section 3.0, communal lifts and stairs, in Section 4.0 and private entrances in Section 5.0.

Requirements at all Levels:

All Levels	1.1	All <u>approach routes</u> should be <u>step-free</u> where practicable. Stepped approaches are acceptable (and often beneficial) where provided in addition to a ramped route at any Level, but are only acceptable as the sole route where noted in the requirements at each Level.
	1.2	External steps forming part of an <u>approach route</u> should provide

		<p>the following features:</p> <ol style="list-style-type: none"> unobstructed flight width of at least 900mm maximum rise of 1800mm between landings to all flights top, bottom and, where necessary, intermediate landings at least 900mm long uniform steps with a rise of 75mm - 150mm and a minimum going of 280mm continuous handrail located on one side of all flights with three or more risers, fixed 850-1000mm above the pitch line, extending at least 300mm beyond the top and bottom nosings and finishing in a horizontal section
	1.3	The gradient to an approach route should always be as shallow as the site permits; subject to a nominal longfall of 1:50 and a <u>manageable crossfall</u> to external parts of the route, to shed rainwater. For permissible ramp gradients refer to DIAGRAM 1 .
	1.4	The ground surface should be reasonably firm and, even under normal weather conditions.
	1.5	All external gates, openings or doorways within an <u>approach route</u> should provide a minimum <u>clear opening width</u> of 850mm.
	1.6	External lighting to a communal <u>approach route</u> should be passive infra red activated unless solar powered, automatically timed or otherwise managed.

Additional requirements at each Level:

Level 1	1.7_L1	The <u>approach route</u> should be <u>level, gently sloping, ramped</u> or, in exceptional circumstances, may be <u>stepped</u> .
	1.8_L1	A <u>stepped approach route</u> is acceptable where <u>step-free</u> access can be cannot reasonably be achieved to any entrance to the dwelling, including to individual flats and communal facilities on floors other than the ground floor, that are not provided with lift access. It will also be acceptable where the underlying site topography is steeper than 1:15 or within an area of flood risk requiring raised floors, but only where all reasonable measures to provide <u>step-free</u> access have been taken.
	1.9_L1	A <u>private approach route</u> should be at least 900mm wide.
	1.10_L1	A <u>communal approach route</u> should be at least 1200mm wide to areas that have <u>step-free</u> access. Corridors and landings which do not have <u>step-free</u> access may be reduced to 1000mm.

Level 2	1.7_L2	The <u>approach route</u> should be <u>level, gently sloping or ramped</u> .
	1.8_L2	A <u>stepped approach route</u> is only acceptable as an additional route where the main route is <u>ramped</u> , but where unavoidable, steps may provide the only route to a communal store that is provided for cycle storage only.
	1.90_L2	A <u>private approach route</u> should be at least 900mm wide.
	1.10_L2	A <u>communal approach route</u> should be at least 1200mm wide.
	1.11_L3	Localised obstructions are acceptable within an <u>approach route</u> provided that they do not narrow the route by more than 150mm or occur within 1200mm either side of a doorway or change of direction.

Level 3	1.7_L3	<p>The approach route should be <u>level</u> or <u>gently sloping</u> or <u>ramped</u>. The maximum gradient to a <u>ramp</u> within a private <u>approach route</u> is 1:15. (A communal route may be up to 1:12.) A stepped approach route is only acceptable as an additional route where the main route is <u>ramped</u>, but where unavoidable, steps may provide the only route to a communal store that is provided for cycle storage only. Private and communal approach routes should be at least 1200mm wide and provide a 1500 x 1500mm passing or turning space at each end of the route and at not more than 10m intervals. Localised obstructions are acceptable within an <u>approach route</u> provided that they do not narrow the route by more than 150mm or occur within 1200mm either side of a doorway or change of direction.</p>
	1.8_L3	
	1.9_L3	
	1.10_L3	
	1.11_L3	

Refer to **DIAGRAMS 1, 2 and 3**

2.0 Car parking

Requirements at all Levels:

All Levels	2.1	Gradients to parking areas should be as shallow as the site permits and the ground surface reasonably smooth, even and slip-resistant under normal weather conditions.
	2.2	Where there is external space within the site, a drop-off or setting down point with flush kerb should be provided close to the main communal entrance of each block or core of a building containing flats or other dwelling types.

Additional requirements at each Level:

Level 1	None.	
Level 2	2.3_L2	Where private parking is provided within the curtilage of a dwelling, a <u>standard parking bay</u> should be capable of being widened to 3.3m. Garages and car-ports are exempt from this requirement.
	2.4_L2	Where communal parking is provided, at least one <u>standard parking bay</u> with a clear access zone of 900mm to one side and a dropped kerb, should be provided close to the entrance or lift core of each block. This should be additional to any provision for Level 3 homes.
	2.5_L2	Parking areas should be <u>level</u> or <u>gently sloping</u> .
Level 3	3.3_L3	Unless otherwise permitted or required by the local authority, each Level 3 home should be provided with an allocated <u>standard parking bay</u> with additional access zones as described below and a dropped kerb.
	3.4_L3	Where the space is within the curtilage of a dwelling, including within a garage or car-port, clear access zones of 1200mm are required to one side and to the rear of the parking bay.
	3.5_L3	Where the space is within a communal parking area, the side access zone is required to both sides (but not the rear) of a

	3.6_L3	<p><u>standard parking bay</u>. The side access space may be shared between two adjacent bays.</p> <p>Parking areas should be <u>level</u> and provide a minimum headroom of 2200mm.</p>
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3.0 Communal entrances

SCOPE:

14. This section applies to the main communal entrance door to a building containing flats (or other dwelling types served by a communal entrance). It also applies to all other communal doors and gates located between the main entrance and the private entrance to the flat itself, and to doors which give access to communal gardens, terraces, balconies, play areas and other communal facilities intended for residents.

Requirements at all Levels:

All Levels	3.1	All entrance areas should provide a well lit, external <u>level</u> landing area and a door with a <u>clear opening width</u> of at least 800mm. This can usually be achieved with a standard 1010mm overall doorset, but where the door has a weatherboard or full width projecting ironmongery (such as a panic bar) a wider opening may be required.
	3.2	Where double doors are provided , the main, leaf should provide the required minimum <u>clear opening width</u> .
	3.3	All communal entrance doors and gates should provide an <u>accessible threshold</u> .
	3.4	Where a secondary entrance door is provided , for example to a lobby or porch, the doors should be at least 1500mm apart and provide at least 1500mm clear space between door swings. The second door should also provide a <u>minimum clear opening width</u> of 800mm.
	3.5	Entrance matting should not be of coir or any other material that impedes wheelchair use.
	3.6	Passive infra red activated lighting is required to the outside of all communal entrances.

Additional requirements at each Level:

Level 1	3.7_L1	The communal entrance should provide a <u>level</u> external landing area at least 1200mm wide x 900mm deep and fully covered.
Level 2	3.7_L2	The communal entrance should provide a <u>level</u> external landing area at least 1200mm wide x 1200mm deep and fully covered.
	3.8_L2	A 300mm nib should be provided to the <u>leading edge</u> of all communal doors and gates within the scope of this section; creating a side clearance zone that extends for a distance of at least 1200mm in front of the door. Nibs are not required to doors to a communal stairwell that is not part of an area with <u>step-free</u> access, until it is also a wheelchair evacuation compartment.
	3.9_L2	A 1500mm clear turning circle should be provided inside the entrance area, in front of the entrance door when closed.
Level 3	3.7_L3	The communal entrance should provide a <u>level</u> external landing area at least 1500mm wide x 1500mm deep and covered for a width and depth of at least 1200mm.
	3.8_L3	A 300mm nib should be provided to the <u>leading edge</u> of all communal doors and gates within the scope of this section; creating a side clearance zone that extends for a distance of at least 1800mm in front of the door.
	3.9_L3	A 200mm nib should be provided to the <u>following edge</u> of each door; creating a side clearance zone that extends for a distance of at least 1500mm in front of the door. Nibs are not required to doors to a communal stairwell that is not part of an area with <u>step-free</u> access unless this is also a wheelchair evacuation compartment .
	3.10_L3	A 1500mm clear turning circle should be provided inside the entrance area, in front of the entrance door when closed.
	3.11_L3	Power assisted door opening should be provided where the opening pressure of a door or gate exceeds 20 Newtons.

4.0 Communal lifts and stairs

SCOPE:

15. This section applies to communal passenger lifts and stairs that provide regular access to dwellings or to communal facilities to which residents have regular access.

Requirements at all Levels:

All Levels	4.1	Where a lift is provided , it should be capable of transporting at least 8 people (or a person in a wheelchair and a companion), provide a minimum internal car size of 1100mm wide x 1400mm deep and a clear rectangular space of 1500mm x 1500mm in front of the door at every floor level.
	4.2	Irrespective of whether a lift is provided , a communal stair should provide the following features and, where it is an escape

		<p>stair, must also comply with <i>Part B of the Building Regulations</i>.</p> <ol style="list-style-type: none"> a. uniform rise not more than 170mm b. uniform going of at least 250mm c. continuous handrails on both sides of the flight extending 300mm beyond the top and bottom nosings and finishing in a horizontal section d. step nosings that are distinguishable through contrasting brightness e. closed or 'solid' risers
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Additional requirements at each Level:

Level 1	None.
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Level 2	4.3_L2	Lift access is required to any Level 2 home located above or below the ground or entrance floor, and to any associated communal facilities, unless another form of <u>step-free</u> access is available.
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Level 3	4.3_L3	Lift access is required to any Level 3 home located above or below the ground or entrance floor, and to any associated communal facilities, including parking, unless another form of <u>step-free</u> access is available.
	4.4_L3	Two lifts are required to any core serving a total of 30 or more upper level homes where one or more is a Level 3 home.
	4.5_L3	Where only one lift is provided, a rapid repair contract should be in place.

Part II Private Entrances And Private Spaces Inside And Outside The Home

5.0 Private entrances

SCOPE:

16. This section applies to the main private entrance to an individual home. Where the use of another entrance is permitted because step-free access cannot be achieved to the main entrance, the requirements of this section should apply to the alternative entrance and the main entrance.
17. Where noted, it also applies to other external doors providing access into, or out from, the dwelling (including doors to conservatories, garages, gardens, balconies, winter gardens and roof terraces). Communal entrances are dealt with in **Section 4.0** and gardens in **Section 12.0**.

Requirements at all Levels:

All Levels	5.2	The private entrance area should provide a <u>level</u> external landing and a door with a <u>clear opening width</u> of at least 800mm. This can usually be achieved with a standard 1010mm overall doorset but where the door has a weatherboard, a wider opening may be required.
	5.2	Where a secondary entrance door is provided , for example within a lobby or porch, the doors should be at least 1200mm apart and provide at least 1200mm clear space between door swings. The second door should also provide a minimum <u>clear opening width</u> of 800mm.

Additional requirements at each Level:

Level 1	5.3_L1	The private entrance should provide a <u>level</u> external landing area at least 1200mm wide x 900mm deep.
	5.4_L1	An <u>accessible threshold</u> is required wherever practicable, even where a <u>step-free approach route</u> cannot be provided.
	5.5_L1	Provision should be made for a light to be fitted outside the main entrance.
Level 2	5.3_L2	The private entrance should provide a <u>level</u> external landing area at least 1200mm wide x 1200mm deep, and covered for a width of at least 900mm and a depth of at least 750mm.
	5.4_L2	An <u>accessible threshold</u> is required.
	5.5_L2	A 300mm nib should be provided to the <u>leading edge</u> of the entrance door; creating a side clearance zone that extends for a distance of at least 1200mm in front of the door.
	5.6_L2	All other external doors providing access into, or out from, the dwelling) should also provide at least 800mm <u>clear opening width</u>

	5.7_L2	and door nibs to the <u>leading edge</u> . An <u>accessible threshold</u> is also required except to a door that provides access to a balcony or roof terrace that is located above accommodation and where the necessary build-up of insulation and weather proofing makes <u>step-free access</u> impractical. Passive infra red activated external lighting is required outside the main entrance.
Level 3	5.3_L3	The private entrance should provide a <u>level</u> external landing area at least 1500mm wide x 1500mm deep, and covered for a width and depth of at least 1200mm.
	5.4_L3	An <u>accessible threshold</u> is required.
	5.5_L3	A 300mm nib should be provided to the <u>leading edge</u> of the door and a 200mm recess to the hinge side to allow for the fitting of a letter cage to the back of the letter-box. The side clearance zones created on each side should extend for a distance of at least 1500mm in front of the door.
	5.6_L3	A 200mm nib should be provided to the <u>following edge</u> ; creating a side clearance zone that extends for a distance of at least 1800mm in front of the door.
	5.7_L3	A 1500mm <u>clear turning circle</u> should be provided inside the entrance area, clear of the main entrance door when closed.
	5.8_L3	All other external doors providing access into, or out from, the dwelling should also provide a <u>clear opening width</u> of at least 800mm an <u>accessible threshold</u> and nibs to the <u>leading and following edges</u> with the same side clearance zones.
	5.9_L3	Where double doors are provided , the main leaf should provide the required minimum <u>clear opening width</u> .
	5.10_L3	Passive infra red activated external lighting is required outside all external entrances.

Refer to DIAGRAMS 2 and 3

6.0 Circulation areas including halls, landings, wheelchair storage/ charging space, stairs and through-floor lift provision

Requirements at all Levels:

All Levels	6.1	The minimum <u>clear width</u> to a hall or landing may be reduced by up to 150mm by a localised obstruction such as a radiator provided that this reduction is not within 1000mm of a doorway.
	6.2	All private stairs should comply with <i>Part K of the Building Regulations</i> , provide a minimum <u>clear flight width</u> of 850mm measured in accordance with Annex B1, and be capable of accommodating a stair lift.

Additional requirements at each Level:

Level 1	6.3_L1	All halls and landings within the <u>entrance floor</u> , and the <u>principal floor</u> where this is not the <u>entrance floor</u> , should provide a <u>clear width</u> of at least 900mm.
	6.4_L1	Where the approach to a doorway to a habitable room, the kitchen, or the room containing the WC is not head-on, either the <u>clear width</u> of the hall or the <u>clear opening width</u> of the door, or both, should be increased in accordance with requirement 7.2_L1 .
Level 2	6.3_L2	All halls and landings within the <u>entrance floor</u> and the floor level above should provide a <u>clear width</u> of at least 900mm.
	6.4_L2	Where the approach to a doorway on the <u>entrance floor</u> or first floor level is not head-on, either the <u>clear width</u> of the hall or the <u>clear opening width</u> of the door, or both, should be increased in accordance with requirement 7.2_L2 .
Level 3	6.3_L3	All halls and landings should provide a <u>clear width</u> of at least 1050mm.
	6.4_L3	Where the approach to any doorway is not head-on, the minimum <u>clear width</u> of the hall or landing should be increased to 1200mm.
	6.5_L3	A wheelchair storage/charging space should be provided close to the main entrance and with access from a hallway at least 1200mm wide. The space should be at least 1100mm wide and 1700mm long and provided with a power socket. Refer to DIAGRAM 4
	6.6_L3	In a house, or other home on more than one floor level , the circulation areas of each floor should be connected by a lift. In two storey homes this will normally be a through floor lift to BS-EN 81-41, but in three storey houses, a platform lift will be needed. The shaft should be at least 1000mm wide and 1500mm long, clear of services, and with a 1200 x 1200 <u>clear manoeuvring space</u> , in front of it on each floor. One short end should be located against a wall and a three phase power socket provided.
	6.7_L3	In a wheelchair adaptable home , either the wheelchair storage/charging space, or the lift space (or both), may be used for storage (or another purpose) provided that; <ul style="list-style-type: none"> a. it is additional to the minimum general storage requirement of the Space Standard (where applied), b. it is clear of services other than the lift power supply c. any walls, floors, ceilings and doors could be easily removed without structural alteration d. it is fire protected where necessary

7.0 Internal doors and doorways

Requirements at each Level:

Level 1	7.1_L1	Within the entrance floor , or the principal floor where this is not the entrance floor, the doorway to any habitable room, the kitchen, and the room containing the WC should provide a minimum <u>clear opening width</u> of 750mm.
	7.2_L1	When the approach is not head-on , the <u>clear opening width</u> of the doorway should be increased to 775mm where the <u>clear width</u> of the hall is between 1050mm and 1200mm, and to 800mm where the <u>clear width</u> of the hall is between 900mm and 1050mm.
Level 2	7.1_L2	Throughout the home , all internal doorways, except to a cupboard, where walk-in access is not intended, or to an ensuite shower room which is additional to the requirements of Section 10.0 , should provide a minimum <u>clear opening width</u> of 750mm.
	7.2_L2	When the approach is not head-on , the <u>clear opening width</u> of the doorway should be increased to 775mm where the <u>clear width</u> of the hall is between 1050mm and 1200mm, and to 800mm where the <u>clear width</u> of the hall is between 900mm and 1050mm.
	7.3_L2	All doors within the entrance floor , including cupboards, should provide a 300mm nib to the <u>leading edge</u> . (Double doors will not require nibs).
Level 3	7.1_L3	Throughout the home , all internal doorways, except to a cupboard where wheel-in access is not intended, or to an ensuite shower room which is additional to the requirements of Section 10.0 , should provide a minimum <u>clear opening width</u> of 800mm, irrespective of the direction of entry.
	7.2_L3	All doors , (subject only to the same exceptions for cupboards and ensuites) should provide a 300mm nib to the <u>leading edge</u> and a 200mm nib to the <u>following edge</u> . (Double doors will not require nibs).
	7.3_L3	Where two doorways are positioned within adjacent walls in an internal corner situation, the combined length of the two nibs between the doors should be at least 800mm to allow for turning from room to room. Requirement 7.2_L3 still applies in this situation. Refer to DIAGRAM 4

8.0 Living, dining, kitchen areas including glazing height requirements

Requirements at each Level:

Level 1	8.1_L1	A habitable room , preferably a living space, should be provided on the <u>entrance floor</u> , or the <u>principal floor</u> where this is not the entrance level.
Level 2	8.1_L2	A living space , which may be a combined kitchen/dining room, should be provided within the <u>entrance floor</u> .
	8.2_L2	The kitchen should provide at least 1200mm clear space in front of, and between, all kitchen units and appliances.
	8.3_L2	Glazing to the window to the main living area should start no higher than 850mm above floor level.
Level 3	8.1_L3	The living space, kitchen and an eating area should be provided within the entrance floor.
	8.2_L3	The kitchen should provide at least 1500mm clear space in front of, and between, all kitchen units and appliances.
	8.3_L3	In a wheelchair accessible home , the kitchen should include a height adjustable section of worktop that includes a sink (with a shallow, insulated bowl with monobloc lever taps and flexible plumbing) and a hob; spaced at least 400mm apart. Unless otherwise requested, it should provide open leg room below, and be clear of other appliances. Refer to DIAGRAM 6.
	8.4_L3	In a wheelchair adaptable home , the section of worktop described above is not required at the outset provided that it is clear how the kitchen could be easily modified to provide a <u>wheelchair accessible</u> layout without significant alteration to drainage or compromise to any adjoining living or dining area. Drawings should show how the overall worktop length could be increased by at least 2000mm to compensate for the cupboard storage capacity lost when the height adjustable worktop is needed and that the required access to other kitchen fittings can be achieved.
	8.5_L3	The kitchen should include a space for a built-in oven with its centre line between 800mm and 900mm above floor level.
	8.6_L3	Glazing to the window to the main living area should start no higher than 850mm above floor level.

9.0 Bedrooms Including hoisting requirements and relationship to bathroom

Requirements at all Levels:

All Levels	9.1	Clear access zones and clear access routes should not be compromised by furniture, radiators or other fixed obstructions. The area adjacent to the bedhead is excluded, as shown in DIAGRAM 7 .
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Additional requirements at each level:

Level 1	None.	
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Level 2	9.2_L2	All bedrooms should provide a <u>clear access route</u> , at least 750mm wide, from the doorway to the window.
	9.3_L2	At least one double bedroom (the principal bedroom) should provide a 750mm wide <u>clear access zone</u> to both sides and the foot of the bed. This bedroom should be on the same floor as a <u>Type 2 bathroom</u> .
	9.4_L2	All other double bedrooms should provide a 750mm wide <u>clear access zone</u> to one side and the foot of the bed.
	9.5_L2	All single and twin bedrooms should provide a 750mm wide <u>clear access zone</u> to one side of each bed.

Level 3	9.2_L3	All bedrooms should provide a <u>clear access route</u> , at least 750mm wide, from the doorway to the window.
	9.3_L3	At least one double bedroom (the principal bedroom) should provide a 1000mm wide <u>clear access zone</u> to both sides and the foot of the bed and in front of all other furniture, and a 1200 x 1200mm <u>clear manoeuvring space</u> provided on both sides of the bed. This bedroom should be on the same floor as a <u>Type 3 wheelchair accessible</u> or <u>wheelchair adaptable</u> bathroom or shower room, as appropriate. Refer to DIAGRAM 6.
	9.4_L3	All other double bedrooms should provide a 1000mm wide <u>clear access zone</u> to both sides and the foot of the bed and in front of all furniture.
	9.5_L3	All single and twin bedrooms should provide a 1000mm wide <u>clear access zone</u> to one side of each bed and in front of all furniture.
	9.5_L3	All bedrooms should provide a 1200mm x 1200mm <u>clear manoeuvring space</u> inside the doorway to each bedroom, clear of the door when closed.
	9.6_L3	The ceiling structure to the principal bedroom described in requirement 9.3_L3 should be strong enough to allow for the fitting of an overhead hoist.

10.0 Sanitary provision including wc/cloakrooms, bathrooms and shower rooms

SCOPE:

18. This section sets out minimum requirements for WC/cloakrooms, bathrooms and shower rooms, recognising that some smaller homes may only provide a bathroom. Many homes will exceed the minimum requirements but, unless stated otherwise, additional sanitary facilities are not required to meet the requirements of this section. The requirements should be read in conjunction with the diagrams in Annex C1 and the table and example layouts in Annex D1.

Requirements at all Levels:

All Levels	10.1	All WC/cloakrooms should provide a minimum of one WC and one hand rinse basin.
	10.2	Doors to WC/cloakrooms should be outward opening or capable of being made outward opening.

Additional requirements at each Level:

Level 1	10.3_L1	Every home should provide a <u>Type 1 WC and basin</u> on the entrance floor, or the principal floor where this is not the entrance level. These should be provided together within a WC/cloakroom, bathroom or shower room.
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Level 2	10.3_L2	All walls, ducts and boxings should be strengthened to allow for the fitting of grab-rails and other items.
	10.4_L2	Every home should provide a <u>Type 2 WC, basin and provision for a future level access shower</u> on the entrance floor. These should be provided together within a WC/cloakroom, bathroom or shower room. In a house (or other dwelling with 2 or 3 storeys) and only 1 or 2 bedrooms, provision may be reduced to a <u>Type 1 WC and basin (without provision for a future level access shower)</u> .
	10.5_L2	A home with 5 or more bedspaces should provide an additional WC and basin.
	10.6_L2	The bathroom referred to in 9.3_L2 should provide a <u>Type 2 WC, basin and bath</u> .

Level 3	10.3_L3	All walls, ducts and boxings should be strengthened to allow for the fitting of grab-rails and other items.
	10.4_L3	Every <u>wheelchair accessible</u> home should provide a <u>Type 3 WC, basin, level access shower</u> and a <u>clear turning circle</u> on the entrance floor. These should be provided together within a WC/cloakroom, bathroom or shower room.
	10.5_L3	A <u>wheelchair accessible</u> home with 4 or more bedspaces should provide an additional <u>Type 3 WC</u> , <u>Type 3 basin</u> and <u>clear turning circle</u> .
	10.6_L3	A <u>wheelchair accessible</u> home with 5 or more bedspaces should provide both a <u>Type 3 bath</u> and a <u>Type 3 shower</u> in addition to the WC, basin an clear turning circle. These maybe provided together in the same bathroom or in separate bathrooms, (but not within a WC/cloakroom unless this is enlarged to include a full <u>Type 3 shower</u>). One of the rooms should be the bathroom referred to in 9.3_L3 . Where both a bathroom and a shower room are provided on the same floor level, one may be provided as an ensuite; with, or without, a direct connection to the hall or landing.
	10.7_L3	The bathroom referred to in 9.3_L3 should provide a minimum of a <u>Type 3 WC, basin and bath or shower</u> and a <u>clear turning circle</u> .
	10.8_L3	In a <u>wheelchair adaptable</u> home , <u>Type 2</u> fittings (including <u>provision for future level access shower</u>) are acceptable in all WC/cloakrooms, bathrooms and shower rooms provided that drawings show how these spaces have the potential to satisfy the requirements for wheelchair accessible homes set out above. This may involve replacing fittings and adjusting the layout but should not usually require walls or radiators to be moved or drainage to be significantly altered. However, requirement 10.7_L3 may be satisfied by demonstrating that a <u>Type 2 bathroom</u> and an adjacent ensuite could be combined without any structural implications or significant alteration to drainage arrangements.
	10.9_L3	The ceiling structure to all WC/cloakrooms, bathrooms and shower rooms should be strong enough to allow for the fitting of an overhead hoist.

Refer to DIAGRAM 8 in ANNEX C1 and the table and examples of typical compliant solutions in ANNEX B1.

11.0 Services and fixing and mounting heights of switches, stopcocks, controls and handles

Requirements at all levels:

All Levels	11.1	Consumer units should be mounted with their centre line at 1350 - 1450mm above floor level, in accordance with <i>Part P of the Building Regulations</i> .
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Additional requirements at each Level:

Level 1	11.2_L1	Switches, stopcocks and controls should be located between 450mm and 1200mm above floor level and at least 300mm (measured horizontally) from an inside corner, wherever practicable. Controls to a radiator, boiler, cooker hood and other items that are usually mounted outside of this range are exempt.
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Level 2	11.2_L2	Switches, stopcocks and controls should be located between 450mm and 1200mm above floor level, and at least 300mm (measured horizontally) from an internal corner, wherever practicable. In kitchens, switches and sockets over worktops should be 700mm from an internal corner. Controls to a radiator, boiler, cooker hood and other items that are usually mounted outside of this range are exempt.
	11.3_L2	Window handles should be located at or below 1400mm above floor level. In the main living space, the handle to at least one window should be at or below 1200mm above floor level.

Level 3	11.2_L3	All switches, stopcocks and controls should be located between 700mm and 1000mm above floor level, and at least 300mm (measured horizontally) from an internal corner, wherever practicable. In kitchens, appliances should be provided with isolators mounted within this height range, and switches and sockets over worktops should be 700mm from an internal corner. In a <u>wheelchair adaptable</u> home, radiator controls are exempt from this requirement.
	11.3_L3	Window handles should be located at or below 1000mm.
	11.4_L3	Door handles, locks, latches and catches should be easy to grip and use, and fitted between 850mm and 1000mm above floor level.
	11.5_L3	Light switches should be on individual plates unless wide rocker or full plate fittings are provided at the outset.
	11.6_L3	Double socket outlets should provide the switches at outer ends of the plate (rather than in the centre) to facilitate use.
	11.7_L3	In a <u>wheelchair accessible</u> home , a door entry phone with remote door release facility should be provided in the main living space and the main (principal) bedroom. In a <u>wheelchair adaptable</u> home, future provision should be made; for example by providing a blanked socket outlet, conduit and draw wires.
	11.8_L3	Bedhead controls comprising a 2-way light switch, telephone and broadband socket, TV aerial and power socket outlets, and the door entry phone provision described above, should be grouped adjacent to the head of the bed in the main (principal) bedroom.

12.0 Private outdoor space

SCOPE:

19. This section applies to private gardens, balconies and roof terraces, where provided.

Requirements at each Level:

Level 1	None.	
Level 2	12.1_L2	All outdoor spaces should provide a 1500mm <u>clear turning circle</u> , free of any door swing, and suitable for turning a wheelchair. The surface of any paved or other hard ground surface should be reasonably smooth, even and slip resistant under normal weather conditions.
	12.2_L2	Where a private rear garden is provided , this should include a <u>level</u> patio area at least 2000mm deep and not less than 8m ² .
	12.3_L2	A level or gently sloping path , with a <u>clear width</u> of at least 900mm, (or 900mm in one direction and 1200mm in the other where a 90 degree turn is involved) should be provided to any refuse, recycling, cycle or other external store within the front, rear or side garden. (Cycle stores are included to allow them to be used to store other items).
	12.4_L2	The front entrance gates or gateway should provide a minimum <u>clear opening width</u> of 850mm and a 300mm nib to the <u>leading edge</u> .
Level 3	12.1_L3	All outdoor spaces should provide a minimum <u>clear width</u> of 1500mm, a <u>clear turning circle</u> , free of any door swing, and suitable for turning a wheelchair. The surface or any paved or other hard ground surface should be reasonably smooth, even and slip resistant under normal weather conditions.
	12.2_L3	Where a private rear garden is provided , this should include a <u>level</u> patio area at least 2000mm deep and not less than 8m ² .
	12.3_L3	A level or gently sloping path , with a <u>clear width</u> of at least 1050mm and terminating in a <u>clear turning circle</u> , should be provided to any refuse, recycling, cycle or other external store within the front, rear or side garden and to a washing line unless accessible from the patio. (Cycle stores are included to allow them to be used to store other items).
	12.4_L3	All gates and gateways should provide a minimum <u>clear opening width</u> of 850mm and a 300mm nib to the <u>leading edge</u> and a 200mm nib to the <u>following edge</u> .

ANNEX A1: Accessible housing – questions on the technical standards

20. The following paragraphs set out more detailed issues in relation to each of the proposed Levels of performance on which we would invite your views. The format and text of the proposed standard are subject to change, depending on the final outcome. We would therefore ask consultation respondents to focus on the performance standards rather than detailed drafting or structure of the standard.

Level 1 – regulatory baseline

21. The Level 1 Standard set out in this consultation includes a number of possible changes to harmonise requirements across all three levels as recommended by the Industry working Group. We are interested in your views as to the desirability and impact of the following specific requirements which have been set out at Level 1 of the technical standard. In particular we would like to understand your views as to whether considering these requirements and guidance as part of the regulatory baseline in future reviews would impose any additional cost on industry, or whether they should remain – as now – requirements of higher levels of accessibility only. We will take responses under consideration in looking at whether changes should be made to baseline regulation in the future.

Approach routes, Communal Entrances and Communal Facilities

22. Many aspects of new development are shared between dwellings, in particular areas such as communal parking, approach routes, communal entrances and communal hallways and circulation. In apartment buildings in particular, accommodation could include a mix of properties at different access levels – for instance, a block of flats might include a number of wheelchair accessible properties as well as those meeting building regulation minimum, or the intermediate level 2 standard. Communal or on street parking could similarly serve properties of varying levels of accessibility.
23. We are interested in exploring whether it is preferable to have a simple common set of criteria for the approach to shared and communal facilities or whether it remains more appropriate to have different requirements for each level, requiring designers and developers to determine where these different criteria would apply. We are interested in your views on the following specific technical requirements (which could be applicable to all properties as set out in the

consultation access standard) and whether they would impose undue cost and restrictions on developers.

Approach routes

24. The technical standards proposed by the working group suggests revised guidance for all dwellings on the gradient of approach routes, widths for external gates to private and communal entrances, and that approaches to communal entrances should have a width of 1200mm.

QA1.1	Would you support the proposed changes to these aspects of guidance? Y/N. In your view, would introducing these requirements increase cost over and above that within the current AD M of the Building Regulations- please provide reasons for your answer.
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Car Parking

25. Currently, Part M of the building regulations provides no specific guidance on car parking provision, gradients, dropping down off and setting down points within new housing development. These are covered by existing higher access standards such as Lifetime homes and Wheelchair Housing Design Guide, and we are interested in views as to whether it is appropriate to include guidance for all dwellings in future baseline standards.

QA1.2	Would you support the inclusion of guidance non car parking for all dwellings as set out in the consultation standard? Y/N. In your view, would introducing these requirements increase cost to industry - please provide reasons for your answer.
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External Lighting and covered entrances

26. Currently most communal entrances are provided with external lighting, and it is considered industry standard practice for the front doors of private dwellings to be capable of accommodating external lighting activated by motion sensors. The technical standard proposes making installation of infra red activated lighting (PIR) a standard requirement as well as introducing requirements for covered areas to communal entrances.

QA1.3	<p>Would you support inclusion of requirements for external lighting and covered communal entrances? Y/N.</p> <p>In your view, would introducing these requirements increase cost to industry - please provide reasons for your answer.</p>
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Lobbies and double doors

27. Currently, AD M does not include any guidance on the design of lobbies for private or communal entrances (including on appropriate floor finishes in communal lobby areas), or on how to comply where double doors are adopted. The working group took the view that providing guidance on the design of lobbies and their floor finishes would be useful for designers. We are interested in views as to whether to consider including guidance on lobbies in future technical standards.

QA1.4	<p>Do you think that including this guidance for lobbies in all dwellings would be helpful? Y/N.</p> <p>Would introducing these requirements increase cost to industry - please provide reasons for your answer.</p>
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Communal Lifts

28. We are also interested in your views as to whether it would be appropriate to have standardised requirements for lift sizes (increased from current building regulation size to meet requirements for an eight person lift set out in the Lifetime Home Standard) on the basis that these larger lift sizes are typically adopted by Industry.

QA1.5	<p>Do you agree that the lift size set out in the technical standard reflects current industry practice? Y/N.</p> <p>Would introducing these requirements increase cost to industry - please provide reasons for your answer.</p>
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Staircase Widths

29. The working group also proposed that a minimum stair width equivalent to the industry standard width of 850mm, should be required at all levels in all new homes. This is narrower than current requirements in Lifetime Home and Wheelchair Standards, but judged to be adequate in enabling installation of a stair lift for a wide range of users.

QA1.6	<p>Do you agree that it is appropriate to require a minimum width of 850mm in all new homes? Y/N.</p> <p>Would introducing these requirements increase cost to industry - please provide reasons for your answer.</p>
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Hall and Landing widths

30. It was also proposed that guidance on localised obstructions in corridors and hallways should be amended to meet the common requirements at all levels – this is similar to current regulatory requirements but suggests a dimensions of 1000mm from a doorway (where currently the requirement applies only opposite a door way).

QA1.7	<p>Do you agree that it is appropriate to amend guidance on hall and landing widths? Y/N.</p> <p>Would introducing these requirements increase cost to industry - please provide reasons for your answer.</p>
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Services and fixing and mounting heights of switches, stopcocks, controls and handles

31. The working group suggested that wherever possible having service control positions the same across levels would help in simplifying compliance. The technical standard suggests that at level 1 this should include sockets being at least 300mm from the corner of rooms in addition to current regulatory requirements.

QA1.8	<p>Would you support this simplification measure? Y/N.</p> <p>Please give reasons for your answer being clear whether you think that this could add cost to home builders.</p>
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Other requirements for all areas and Level 1 access

32. Other than the changes set out above, the intention is that the performance standards proposed by the working group should reflect current regulatory requirements as set out in existing Approved Document M (Access to and use of buildings). However, in looking to develop a single three tier standard, the way in which these requirements and provisions are expressed has been changed. We are therefore keen to understand whether any of the other

guidance for all area or level 1 could increase regulatory requirements or impose cost on Industry.

QA1.9	<p>Do any other elements of the working group’s suggested technical standard increase requirements above current regulatory minimum? Y/N.</p> <p>Please give reasons for your answer being clear whether you think that this could add cost to home builders and in particular in relation to reworded guidance on the following:</p> <ul style="list-style-type: none"> • Approach routes • External steps • Communal Approach route • Communal entrance doors • Private entrance • Hall and landing widths • Clear access zones and route • Consumer units
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33. We are also interested in your overall views on the proposed Level 1 Standard.

QA1.10	<p>Are the working group’s proposed performance requirements for level 1 of the standards pitched at the right level?</p> <p>Please indicate which of the options below you agree with.</p> <p>a) they go too far, and should be reduced b) they are about right c) they don’t go far enough</p>
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QA1.11	<p>If you do not entirely agree (ie your answer is a) or c), what aspects should be different and why (please provide reasons for your answers, identifying the specific measure by reference number where possible).</p>
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34. If a new approach to access standards is accepted as a result of this review, Government will consider whether it would be beneficial to revisit existing guidance in Approved Document M (access to and use of buildings) in order to ensure that language, approach and terminology are easy to understand and consistent across all access standards. In itself, this could help industry to comply more easily without imposing or changing existing technical requirements.

QA1.12	Do you agree that it would be beneficial for the structure, definitions, terminology and diagrams common to all three levels to be reflected in an updated version of Approved Document M (Access to and use of buildings) of the Building Regulations? Y/N
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Level 2 intermediate accessibility standard

35. Level 2 housing is a rationalised version of existing standards considered to deliver higher accessibility and adaptability, and includes a range of features to make the most common adaptations easier and less expensive. There are a number of changes compared to existing standards, and the more important changes are highlighted below.

THROUGH FLOOR LIFTS

36. It has been decided not to require a pre-designed location for through floor lifts in any level 2 homes. It is usually possible in most homes to identify a suitable position for a through floor lift but it is impossible to predict which occupant will need the lift; a pre-designed location is considered to unnecessarily constrain layouts; and it is estimated that over a 50 year lifespan there is only a 1 in 300 likelihood of a through floor lift being installed.

STRENGTHENING FOR FUTURE HOIST INSTALLATION

37. Requirements for pre-designed positions to meet hoisting requirements have not been included - these have been omitted in the proposed British Standard BS9266 and this has been carried forward in these proposals. It is considered difficult to identify precisely what hoisting requirements will be necessary for an unknown future occupant, meaning that strengthening is often in the wrong location - there is little difficulty in introducing bearers to spread load as part of a hoist installation and it is more cost effective to do this once needs are understood than generically in all property types at the time of construction. Mobile hoists are considered a good, simple alternative in many cases.

STEP FREE ACCESS

38. Currently, standards such as Lifetime Homes require step free access, but also permit a range of property types to be considered 'compliant' even where this cannot be achieved. For example flats over garages, three storey integral

garage town houses and the upper stories of non lift serviced flats can all comply even though accommodation can only be accessed via one or more flight of stairs. Without step free access many of the other features of level 2 properties make much less sense. It is therefore proposed that only properties providing step free access to a WC, and living accommodation at that entrance level can be considered compliant (reference standards section 1.9-12 L2 in Chapter 1 of the accompanying standards document). Where step free access cannot be achieved, properties should be built to Level 1.

Q A1.13	Do you agree that level 2 properties should provide step free access and key facilities at ground level? Y/N.
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39. We are interested in people’s views as to the other proposed elements of the Level 2 standard.

QA1.14	<p>Are the working group’s proposed performance requirements for level 2 of the standards pitched at the right level? Please indicate which of the options below you agree with.</p> <p>a) they go too far, and should be reduced b) they are about right c) they don’t go far enough</p>
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QA1.15	If you do not entirely agree, (ie your answer is a) or c), what aspects should be different and why (please provide reasons for your answers, identifying the specific measure by reference number where possible).
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Level 3 - wheelchair accessible and wheelchair adaptable housing

40. A wide variety of existing wheelchair standards have evolved in response to difficulties experienced in meeting wheelchair user needs with current standards. The proposed level 3 standard is developed to adopt much of this learning and leant heavily on the expertise and experience of the working group members. However, it was noted that it would be desirable to consider undertaking research to ensure that the proposed standards are fully fit for purpose and deliver best value for money.

QA1.16	<p>Are the working group's proposed performance requirements for level 3 of the standards pitched at the right level? Please indicate which of the options below you agree with.</p> <p>a) they go too far, and should be reduced b) they are about right c) they don't go far enough</p>
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QA1.17	<p>If you do not entirely agree, (ie your answer is a) or c), what aspects should be different and why (please provide reasons for your answers, identifying the specific measure by reference number where possible).</p>
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QA1.18	<p>Do you agree that improved evidence of wheelchair users housing needs is necessary? Y/N</p>
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QA1.19	<p>If DCLG was to lead on this research, would you or your organisation be able and willing to collaborate in such a project?</p>
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41. Within the Level 3 standard there is a clear distinction made between wheelchair adaptable housing and wheelchair accessible housing. All housing meeting Level 3 requirements must at least meet the requirement to be adaptable - this means it incorporates all the key spatial and physical design features but without being fully fitted out (eg. including a wheelchair accessible kitchen, a through floor lift and height adjustable fittings) at point of occupation. Wheelchair adaptable is the default standard where the first occupant is unknown and may or may not be a wheelchair user.

42. Wheelchair accessible elements of the standard include all of the most common features necessary for a full time wheelchair user including wheelchair accessible kitchen etc. Properties where a wheelchair user is known to be the most likely first occupant should be built to also meet these requirements - typically this will be affordable housing where local authorities work with providers to ensure that wheelchair users are offered suitable housing.

QA1.20	<p>Do you agree with the working group's proposed differentiation between wheelchair accessible and wheelchair adaptable housing? Y/N</p>
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ANNEX B1: Standardised definitions applying at all levels

General

- Wheelchair accessible:** **Level 3** home in which it is reasonably certain that the first occupants will include a wheelchair user.
- Wheelchair adaptable:** **Level 3** home in which the first occupants are not known.
- Entrance floor** (or storey): The floor level (of the dwelling) on which the main private entrance is located.
- Principal floor** (or storey): The floor level (of the dwelling) on which the main living space is located where this is not the entrance floor.
- Standard parking bay:** 2.4m wide x 4.8m long

Approach routes and associated features

- Approach route:** Internal or external path or corridor usually leading to the main entrance of a dwelling from a defined starting point (typically the pavement immediately outside of the curtilage or plot boundary).
- Level:** Gradient not exceeding 1:50
- Gently sloping:** Gradient between 1:50 and 1:20
- Ramped:** Gradient between 1:20 and 1:12 with level top, bottom and intermediate landings and other features as required by *Part K of the Building Regulations*.
- Step-free:** Route which does not involve any step or upstand of more than 15mm (but which may include a ramp or a lift suitable for a wheelchair user).
- Manageable crossfall:** Not exceeding 1:50
- Accessible threshold:** Door sill which is nominally level with the adjoining floor surface each side, has a maximum slope of 15 degrees and a manageable crossfall. An accessible threshold may encompass a rise of up to 15mm but this should be achieved in transition sections, rather than as a single vertical upstand. ***Refer to DIAGRAM 3.***

Clear widths, access zones and turning circles and features associated with doorways

- Clear width:** Clear distance usually measured between walls or other fixed obstructions, or across a path. Skirtings totalling up to 50mm total thickness and shallow projecting ducts or casings above 1800mm may be discounted and, unless directed otherwise, other localised obstructions of up to 150mm are permitted (subject to conditions noted within the requirements such as avoiding proximity to a doorway).
- Clear opening width:** Clear distance usually measured between the inside face of the doorframe and the face of the door in the open position and maintained for a specified minimum length each side of the doorway. (Where a door opens through at least 95 degrees, most projecting ironmongery which is located away from the hinge side will not usually impinge on the clear opening width).
- Clear flight width:** Clear distance across a stair flight measured between wall faces or balustrading at 450mm above the pitch line of the stair. (The projection of a newel may be disregarded when measuring clear flight width).
- Clear access zone:** Clear, unobstructed space providing access or manoeuvring space; usually around sanitary fittings or between walls or furniture. Localised obstructions are not permitted unless specifically stated.
- Clear access route:** Clear, unobstructed 'pathway' providing access to a window or other feature; usually between walls or furniture. Localised obstructions are not permitted unless specifically stated.
- Clear turning circle:** Clear floor space, represented by a circle of 1500mm diameter, or, where noted, an ellipse of 1400 x 1700mm, that allows a wheelchair user to turn independently in a single movement. A door swing is permitted within a clear turning space unless stated otherwise.
- Clear manoeuvring space:** Clear floor space, represented by a rectangle (usually 1200mm x 1200mm) which allows a wheelchair user to turn independently in a series of manoeuvres. A door swing is permitted within a clear manoeuvring space unless stated otherwise

Leading edge (of door): The surface of a door which leads into, or faces, the room or space into which the door is being opened - sometimes referred to as 'the pull side'.

Following edge (of door): The surface of a door which follows into, or faces away from, the room or space into which the door is being opened - sometimes referred to as 'the push side'.

Sanitary fittings, WC/cloakrooms, bathrooms and shower rooms

Type 1 (sanitary fittings): Individual WC, basin, bath and shower fittings with associated minimum access zone requirements suitable for a **Level 1** home (and **Level 2** where indicated).

Type 2 (sanitary fittings): Individual WC, basin, bath and shower fittings with associated minimum access zone requirements suitable for a **Level 2** home (and a wheelchair adaptable home).

Type 3 (sanitary fittings): Individual WC, basin, bath and shower fittings with associated minimum access zone requirements suitable for a **Level 3** wheelchair accessible home.

Type 1 WC/cloak room: WC/cloakroom containing a Type 1 WC and Type 1 hand rinse basin.

Type 2 WC/cloak room: WC/cloakroom containing a Type 2 WC and Type 2 hand rinse basin (and, where required, provision for a future shower).

Type 3 WC/cloak room: WC/cloakroom containing, or capable of containing, a Type 3 WC and Type 3 hand rinse basin (and, where required, a level access shower).

Type 1 bathroom: WC/cloakroom containing a Type 1 WC and Type 1 hand rinse basin.

Type 2 bathroom: Bathroom containing a Type 2 WC, Type 2 hand wash basin and Type 2 bath (and, where required, provision for a future shower).

Type 3 bathroom: Bathroom containing, or capable of containing, a Type 3 WC, Type 3 hand wash basin and Type 3 bath (and/or where required, a Type 3 shower or provision for a future shower).

Level access shower: A step-free rectangular area with no lips or up-stands, suitable for showering, with a floor laid to shallow falls towards a floor gully which is connected to the drainage system. Usually provided within a wet room.

Provision for a future level access shower: A space with capable of providing a level access shower without the need to move walls, remove screed or other

solid flooring or adapt any drainage below floor level. It should include a capped-off floor gulley, set at an appropriate level and connected to the drainage system. Usually provided within a wet room.

Refer to DIAGRAM 8 in ANNEX C1 and the table and examples of typical compliant solutions in ANNEX D1.

Annex C1: Supporting diagrams

DIAGRAM 1: Maximum rise and going of ramps.

DIAGRAM 2: Private approach route and main private entrance at Level 3.

DIAGRAM 3: Accessible threshold.

DIAGRAM 4: Wheelchair storage/charging space at Level 3. (6.5_L3).

DIAGRAM 5: Doorway spacing in internal corner situation at Level 3. (7.3_L3).

DIAGRAM 6: Example kitchen layouts showing easy conversion from wheelchair adaptable to wheelchair accessible at Level 3. (8.3_L3 and 8.4_L3).

DIAGRAM 7: Example of principal bedroom layout at Level 3. (9.3_L3).

DIAGRAM 8: Sanitary fittings and clear access zone requirements at all Levels.

Diagram 1 - Maximum rise and going of ramps

Notes:

gradient x going = rise
eg. 1/20 x 10 = 500mm

No slope should have a going greater than 10m.

Intermediate landings minimum 1500mm

A site gradient of 1:15 will usually require a series of ramps at 1:12, interspersed with intermediate landings in accordance with Part K of the Building Regulations.

- Does not comply
- Satisfactory

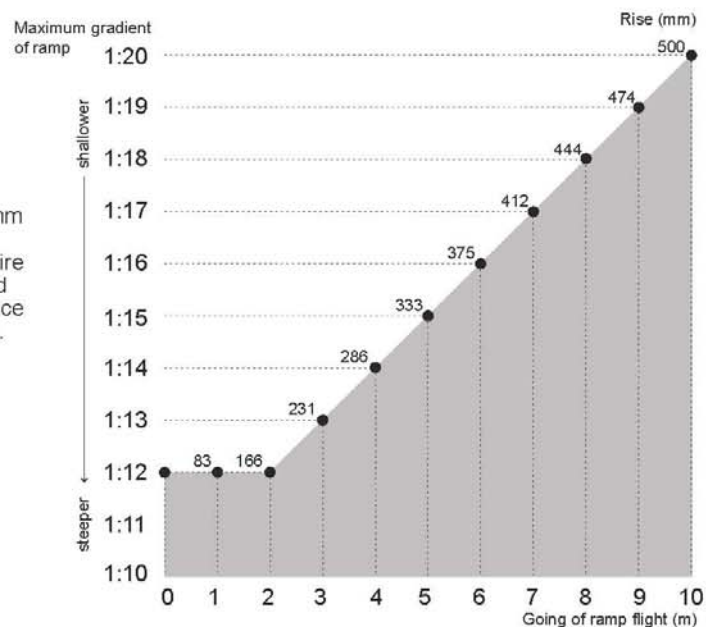
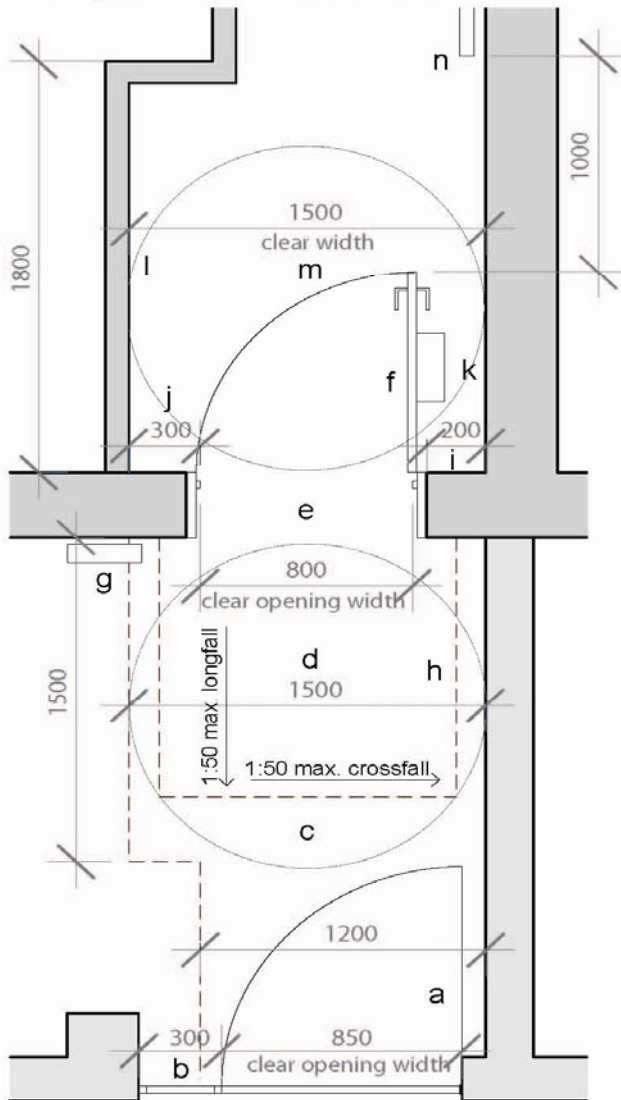


Diagram 2 - Private approach route and main private entrance at Level 3



Key:

- a garden gate (850mm clear opening width)
- b 300mm nib
- c private approach route (1200mm clear width)
- d level landing area (15000 x 1500mm)
- e accessible threshold (see diagram 2)
- f private main entrance door (800mm clear opening width)
- g PIR activated light
- h canopy (1200 x 1200mm shown dotted)
- i nib to following edge (200mm)
- j nib to leading edge (300mm)
- k recess for letter cage (200mm)
- l side clearance zone (300 x 1800mm)
- m internal entrance area (1500 x 1500mm)
- n localised obstruction (1000mm clear of door swing)

Diagram 3 - Accessible threshold

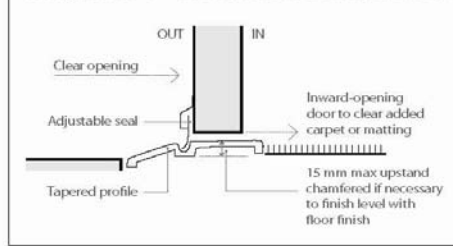


Diagram 4 - Wheelchair storage/charging space at Level 3 (6.5_L3)

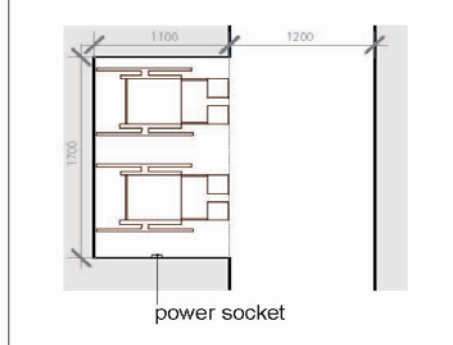


Diagram 5 - Doorway spacing in internal corner situation at Level 3 (7.3_L3)

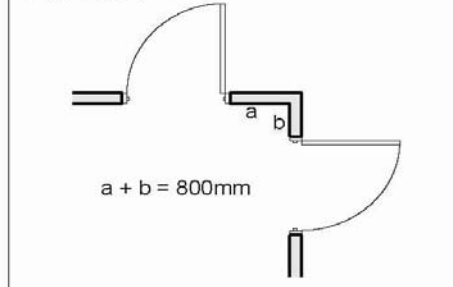
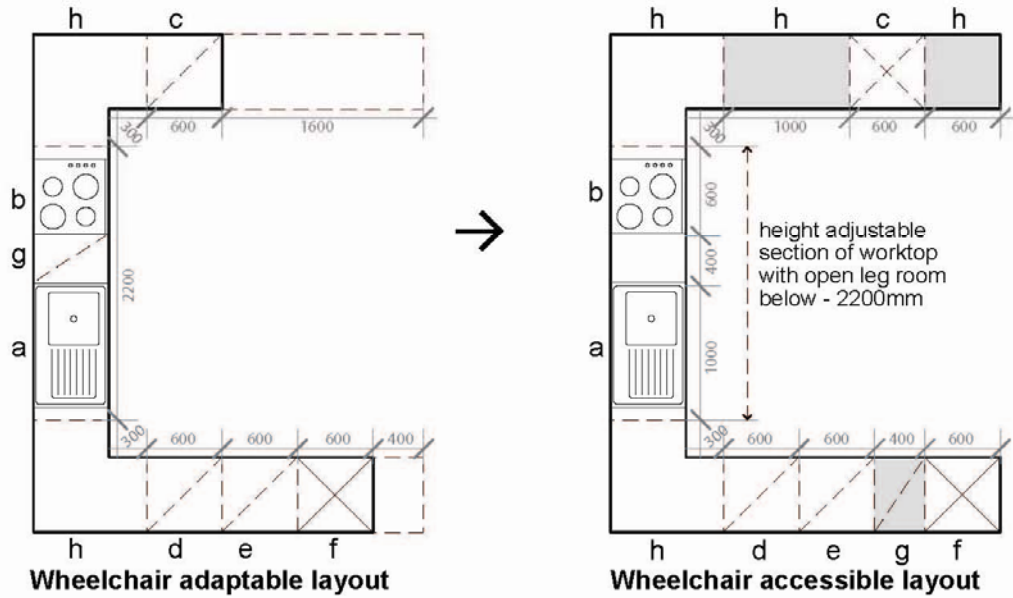


Diagram 6 Example kitchen layouts showing easy conversion from wheelchair adaptable to wheelchair accessible at Level 3 (8.3_L3 and 8.4_L3)



Key:

- a sink and drainer
- b hob
- c oven (c/l 800-900mm for wheelchair accessible)
- d dishwasher
- e washing machine
- f fridge freezer
- g recycling
- h storage base units (inc. corner units)

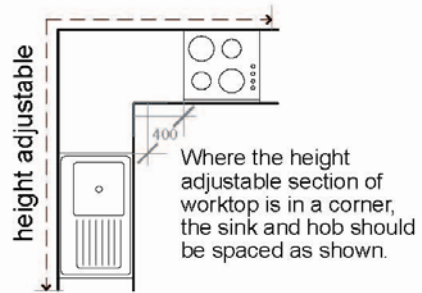


Diagram 7 Example of principal bedroom layout at Level 3 (9.3_L3)

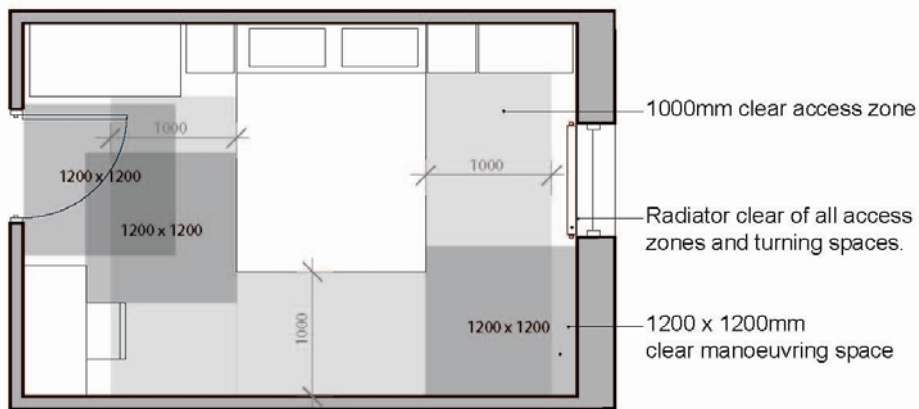


Diagram 8 Sanitary fittings and clear access zone requirements at all Levels

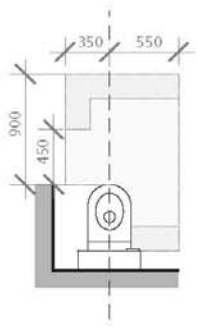
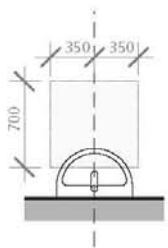
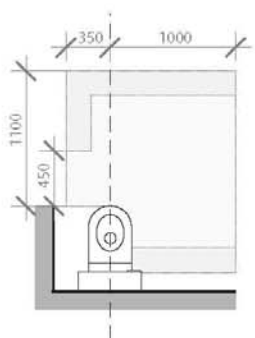
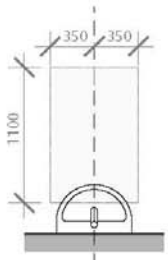
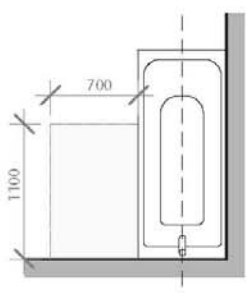
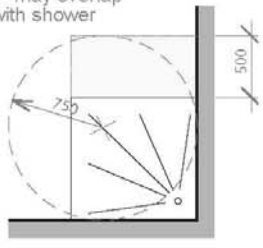
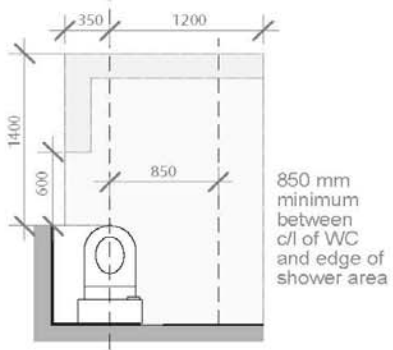
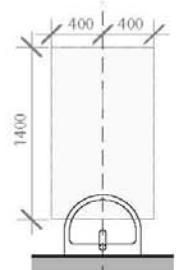
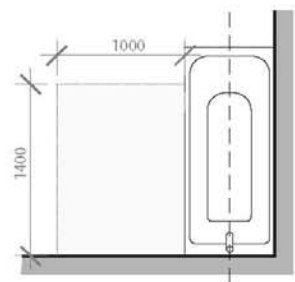
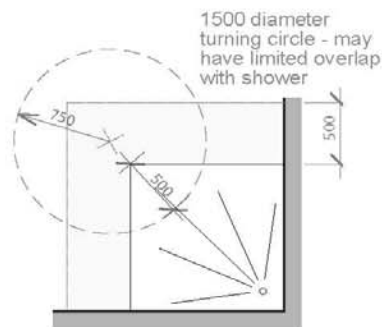
Level 1	Type 1 WC	Type 1 basin
	 <p>WC + cistern 700 x 500</p>	 <p>hand wash basin 600 x 400 hand rinse basin 400 x 250</p>
Level 2 and wheelchair adaptable	Type 2 WC	Type 2 basin
	 <p>WC + cistern 700 x 500</p>	 <p>hand wash basin 600 x 400 hand rinse basin 400 x 250</p>
	Type 2 bath	Type 2 shower
	 <p>bath 1700 x 700</p>	<p>1500 diameter turning circle - may overlap fully with shower</p>  <p>level access shower within bathroom 1000 x 1000</p>

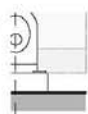
Diagram 8, continued.

Level 3 wheelchair accessible	Type 3 WC	Type 3 basin
	 <p>WC + cistern 800 x 500</p>	 <p>hand wash basin 600 x 500 hand rinse basin 400 x 250</p>
	Type 3 bath	Type 3 shower
	 <p>bath 1700 x 700</p>	 <p>level access shower within bathroom 1200 x 1200 or 1000 x 1200 where potential to widen</p>

Notes:

1. All dimensions are in millimetres (mm).
2. Dimensions shown for fittings are generic and may vary. Other sizes may affect overall bathroom size.
3. Access zones may overlap except where noted.
4. WCs should be located with their centre line 400-550mm from the side wall.
5. At Levels 2 and 3, the access zone may extend under the basin as far as any fixed obstruction such as a pedestal, trap, duct or vanity unit.
6. Basins in wheelchair accessible bathrooms should be height adjustable with flexible plumbing and leg room below (no full height pedestals).
7. Diagrams for showers illustrate arrangements within bathrooms.
8. In WC/cloakrooms the basin and/or WC may encroach into the shower space but this should be minimised.
9. In wheelchair accessible bathrooms and showers, the flush handle to the WC cistern should be located on the side away from the wall.
10. All WC/cloakroom and bathroom layouts should also allow space for a radiator or heated towel rail, clear of access zones.

Key:



Dark strips indicate 200 zone where basin may encroach in WC access zone.

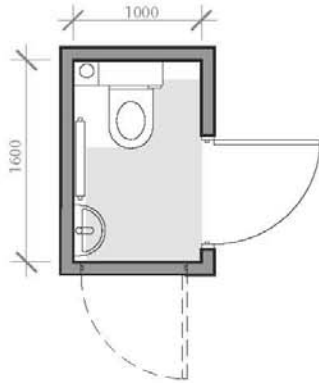
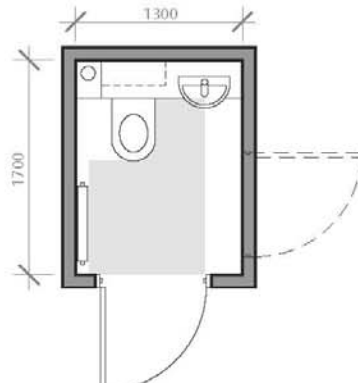
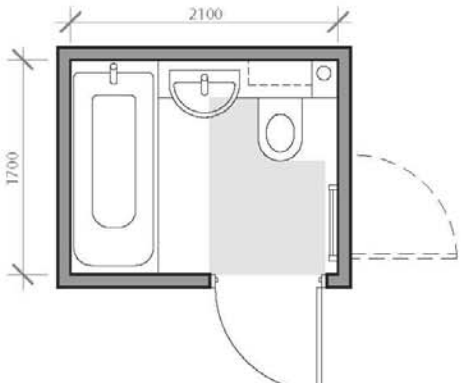
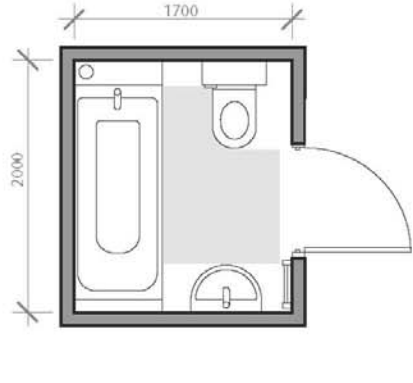
ANNEX D1: Typical sanitary provision for various dwelling types at all Levels

Table showing typical sanitary provision for various dwelling types with reference to diagrammatic examples of compliant solutions

Level 1		
Dwelling type	Typical minimum provision	Example solutions
Flat with 1-4 bedspaces	<u>Type 1 bathroom</u>	1C or 1D
Flat with 5 or more bedspaces	<u>Type 1 WC/ cloakroom</u> + <u>Type 1 bathroom</u>	1A or 1B + 1C or 1D
House	<u>Type 1 WC/cloakroom</u> (entrance floor) + <u>Type 1 bathroom</u> (first floor)	1A or 1B + 1C or 1D
Level 2		
Dwelling type	Typical minimum provision	Example solutions
Flat with 1-4 bedspaces	<u>Type 2 bathroom</u>	2D or 2E
Flat with 5 or more bedspaces	<u>Type 1 WC/ cloakroom</u> (no shower) + <u>Type 2 bathroom</u>	2A, 2B or 2C + 2D or 2E
House with 1-2 bedrooms	<u>Type 1 WC/cloakroom</u> (entrance floor) + <u>Type 2 bathroom</u> (first floor)	1A or 1B + 2D or 2E
House with 3 or more bedrooms	<u>Type 2 WC/cloakroom</u> (entrance floor) + <u>Type 2 bathroom</u> (first floor)	2A, 2B or 2C + 2D or 2E

Level 3			
Dwelling type	Typical minimum provision	wheelchair adaptable	wheelchair accessible
Flat with 1-3 bedspaces	<u>Type 3 bathroom</u> with shower and potential for bath instead	3C	3D
Flat with 4 bedspaces	<u>Type 3 WC/cloakroom</u> + <u>Type 3 bathroom</u> with shower and potential for bath instead	3A + 3C	3B + 3D
Flat with 5 or more bedspaces	<u>Type 3 WC cloakroom</u> (no shower)+ <u>Type 3 bathroom</u> with bath and shower OR <u>Type 3 bathroom</u> with bath + <u>Type 3 bathroom</u> with shower	3A + 3E or 3G OR 3C + 3C	3B + 3F or 3H OR 3D + 3D
House with 1-4 bedspaces	<u>Type 3 WC/cloakroom</u> (entrance level) + <u>Type 3 bathroom</u> with shower and potential for bath instead (first floor)	3A + 3C	3B + 3D
House with 5 or more bedspaces	<u>Type 3 WC/cloakroom</u> (entrance level) + <u>Type 3 bathroom</u> with bath and shower (first floor) OR <u>Type 3 bathroom</u> with bath and potential for shower instead (entrance level) + <u>Type 3 bathroom</u> with shower (first fl.) OR <u>Type 3 WC/cloakroom</u> (entrance level) + <u>Type 3 bathroom</u> with bath + <u>Type 3 bathroom</u> with shower (first floor.)	3A + 3E or 3G OR 3C + 3C OR 3A + 2 x 3C	3B + 3F or 3H OR 3D + 3D OR 3B + 2 x 3C

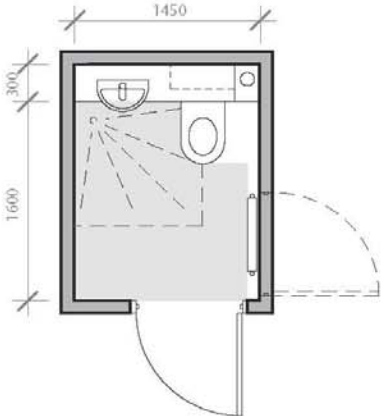
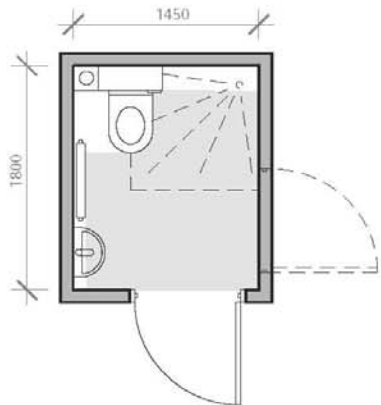
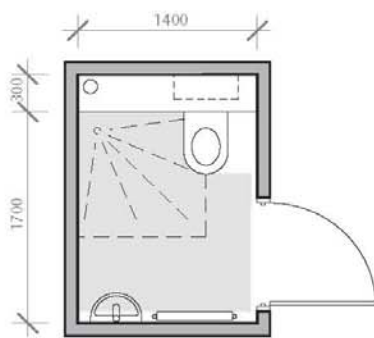
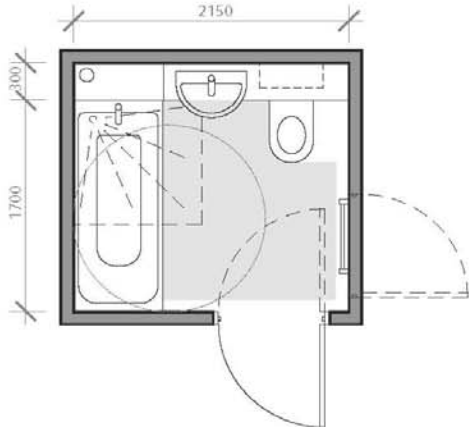
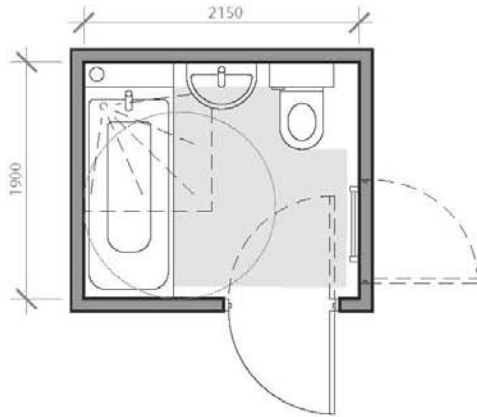
Level 1: Examples of compliant solutions for Type 1 WC/cloakrooms and bathrooms

1A - WC/cloakroom	1B - WC/cloakroom
	
1C - Bathroom	1D - Bathroom
	

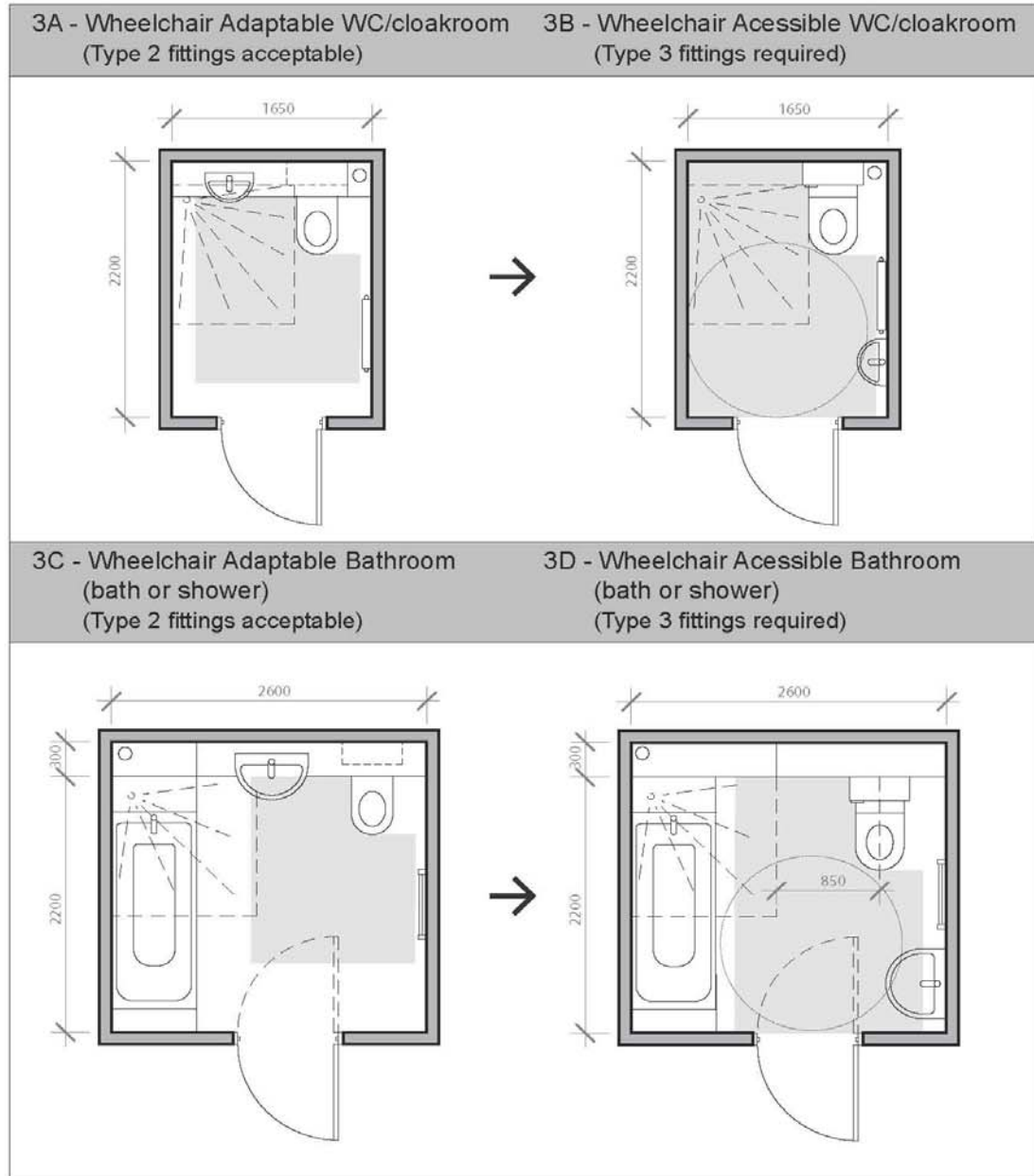
Notes:

1. Bathroom requirements only apply where this provides entrance level WC and basin.
2. Alternative door positions possible in some cases; radiator/towel rail positions to be adjusted accordingly.
3. Ducts and SVP boxing will vary and may not be necessary in all cases.

Level 2: Examples of compliant solutions for Type 2 WC/cloakrooms and bathrooms

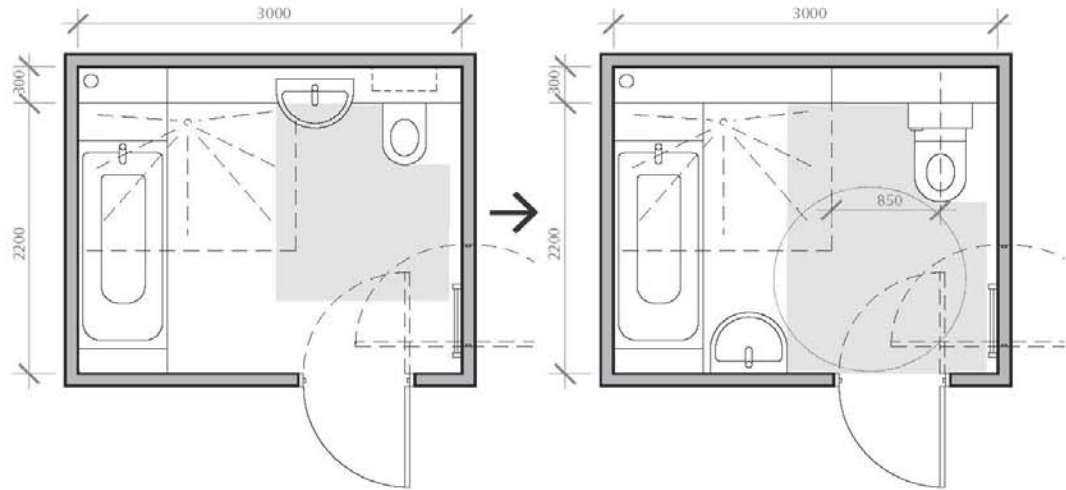
2A - WC/cloakroom	2B - WC/cloakroom
 <p>Floor plan of WC/cloakroom 2A. The room is 1450mm wide and 1600mm deep. It contains a toilet, a sink, and a bidet. A door is shown swinging inward from the right side. A shaded area indicates the required clearances for the fixtures.</p>	 <p>Floor plan of WC/cloakroom 2B. The room is 1450mm wide and 1800mm deep. It contains a toilet, a sink, and a bidet. A door is shown swinging inward from the right side. A shaded area indicates the required clearances for the fixtures.</p>
2C - WC/cloakroom	2D - Bathroom
 <p>Floor plan of WC/cloakroom 2C. The room is 1400mm wide and 1700mm deep. It contains a toilet and a bidet. A door is shown swinging inward from the right side. A shaded area indicates the required clearances for the fixtures.</p>	 <p>Floor plan of Bathroom 2D. The room is 2150mm wide and 1700mm deep. It contains a shower, a toilet, and a bidet. A door is shown swinging inward from the right side. A shaded area indicates the required clearances for the fixtures.</p>
2E - Bathroom	<p>Notes:</p> <ol style="list-style-type: none"> 1. Alternative door positions possible in some cases; radiator/towel rail positions to be adjusted accordingly. 2. Ducts and SVP boxing will vary and may not be necessary in all cases. 3. Future shower provision only needed in bathroom where not provided in a WC/cloakroom within the entrance floor.
 <p>Floor plan of Bathroom 2E. The room is 2150mm wide and 1900mm deep. It contains a shower, a toilet, and a bidet. A door is shown swinging inward from the right side. A shaded area indicates the required clearances for the fixtures.</p>	

Level 3: Examples of compliant solutions for Type 3 WC/cloakrooms and bathrooms
 (showing easy conversion from wheelchair adaptable to wheelchair accessible layouts)



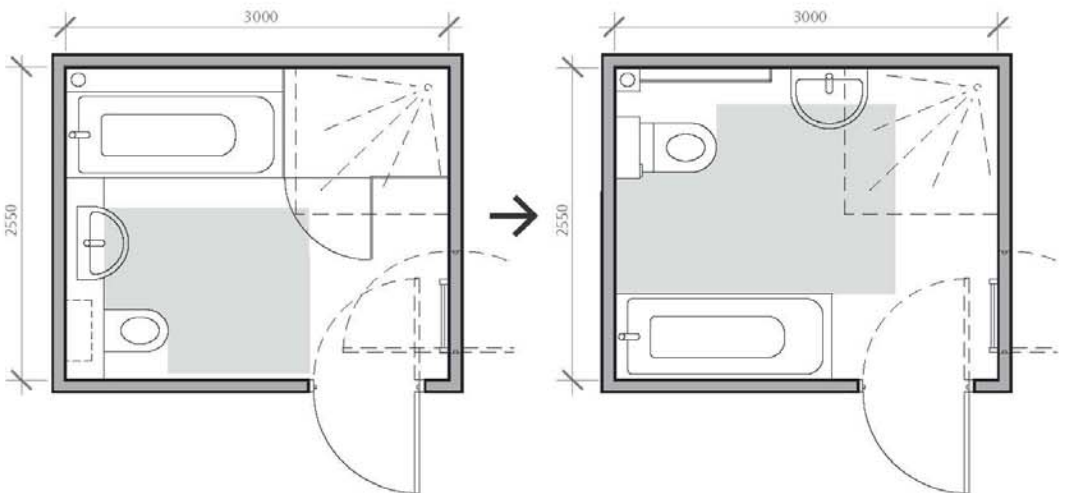
**3E - Wheelchair Adaptable Bathroom
(bath and shower)
(Type 2 fittings acceptable)**

**3F - Wheelchair Accessible Bathroom
(bath and shower or larger shower)
(Type 3 fittings required)**



**3G - Wheelchair Adaptable Bathroom
(bath and shower)
(Type 2 fittings acceptable)**

**3H - Wheelchair Accessible Bathroom
(bath and shower)
(Type 3 fittings required)**



Notes:

1. Alternative door positions possible in some cases; radiator/towel rail positions to be adjusted accordingly.
2. Ducts and SVP boxing will vary and may not be necessary in all cases.
3. Where the WC is brought forward onto the face of a duct or boxing, the boxing should extend for at least 250mm beyond the edge of the cistern to allow for the fitting of drop-down rails.
4. The location of the bath should permit good access to the taps.

Standard 2: Space

Contents

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ANNEX A2: Model space standard – questions on the technical standards

ANNEX B2: Furniture for use in demonstrating compliance with space standard

ANNEX C2: Methodology for Generating the Minimum Gross Internal Floor Areas

Introduction

43. This standard should be read in conjunction with 'Chapter 2 – Space Standards' as well as 'Chapter 1 – Accessibility' of the accompanying consultation document.
44. This standard deals with internal space within new dwellings. It sets out reasonable minimum requirements for the gross internal (floor) area of new dwellings at a defined level of occupancy and provides minimum floor areas and dimensions for key parts of the home, including bedrooms and storage. .
45. The proposals in both the consultation document and this technical annex document have been assembled by the working groups and are illustrative, to inform debate during this consultation. They are not Government policy.
46. The main spatial requirements are defined at three distinct performance levels. These relate directly to the three performance levels of the Accessibility Standard set out in Chapter 1 of this document, as proposed for consultation by the working groups. If the Government decides to proceed with any of these space propositions, application of higher levels of space standards would be limited to particular circumstances, for instance where the need for higher accessibility standards could be robustly evidenced.
47. As well as responding to a range of need, this approach supports market diversity and consumer choice at local level by covering a comprehensive range of one, two and three storey dwelling types with one to six bedrooms.
48. Further variations, including the addition of extra bathrooms and en-suite showers, can be accommodated by the methodology used to generate the **Gross Internal Floor Areas**. This is described at Appendix 2B.
49. The wide range of dwelling types covered by the standard could make it suitable for all tenures and allows for homes to be occupied under different forms of tenure over time.

Status

50. Where a local authority chooses to apply a space standard through local planning policy, it should be the standard set out here. Level 3 Space Standards should only be required for wheelchair accessible or wheelchair adaptable housing (Level 3 of the accessibility standard).
51. This Space Standard cannot be applied independently of the Accessibility Standard.

Relationship between space and accessibility standards

52. The inter-relationship between internal space and accessibility is widely accepted. This interdependency has been a fundamental part of the methodology used to develop Part I of these standards.
53. Across the full range of types and performance levels, the starting point for the Gross Internal Areas is the need for rooms to be able to accommodate a basic set of furniture and fittings appropriate to the function of each room. The furniture schedule is provided as Appendix 2A.
54. The required minimum Gross Internal Areas increase incrementally from Level 1 through to Level 3 to reflect the spatial implications of the larger bathrooms and WCs, and the increased circulation and activity zones that are required by the Accessibility Standard. This space is additional to that required to accommodate the generic furniture.
55. The principles behind each Level of the Space Standard can be summarised as follows:
 - **Level 1 Space Standard** provides enough space to accommodate the minimum amount of furniture, fittings, activity and circulation space considered necessary to carry out a typical range of daily activities and meet the basic requirements of Level 1 of the Accessibility Standard.
 - **Level 2 Space Standard** provides enough space to accommodate the same furniture and fittings as Level 1 and increase activity and circulation space (both within and between rooms) to cover the additional spatial implications of Level 2 of the Accessibility Standard and a straight stair.
 - **Level 3 Space Standard** provides enough space to accommodate the same furniture and fittings as Levels 1 and 2 and additional space to charge and store a wheelchair, install a home-lift, enlarge the kitchen and bathroom and provide the extra activity and circulation space (both within and between rooms) needed to meet Level 3 of the Accessibility Standard.

Applying and using the space standard

56. The minimum Gross Internal Areas are set out in three groups in Table A1-3. This is organised by storey height and deals separately with one storey dwellings (Table A1 - typically flats) and two and three storey dwellings (Table A2 and A3 respectively - typically houses). For each storey height, minimum Gross Internal Areas are given at Levels 1, 2 and 3.

57. Individual dwelling types are expressed with reference to the number of bedrooms (denoted as 'b') and the number of bed spaces – or people that can be accommodated within these bedrooms (denoted as 'p'). A three bedroom (3b) home with one double bedroom (providing two bed spaces) and two single bedrooms (each providing one bed space) is therefore described as 3b4p.
58. Within each table, the minimum Gross Internal Areas for a given number of bedrooms is highlighted in bold text. This is followed by a breakdown of Gross Internal Areas for the range of bed spaces (or people) that are appropriate for the number of bedrooms. For example, a fully occupied 3 bedroom home can accommodate 4, 5 or 6 people depending on the balance of double and single bedrooms provided. These all represent different dwelling types and require different amounts of internal space. The breakdown of Gross Internal Areas therefore allow not only for the different combinations of bedroom size, but also for varying amounts of additional living, dining, kitchen and storage space; all of which are related to occupancy.
59. When specifying dwelling mix as part of a planning brief, local authorities will normally only need to refer to the mix of bedroom numbers that are required. However, to address particular types of property, for example, in relation to larger 2 bedroom flats, it may be helpful to refer to individual dwelling types, by bed spaces (people or occupancy) as well as bedrooms.

Compliance and assessment

60. Where the requirements are applied, applicants should provide a complete breakdown of dwelling types, by tenure, and provide a floor plan of each dwelling type at scale at 1:100 or 1:50. Each plan should show the number of bedrooms and bed spaces provided (for example 3b4p), the gross internal floor area in m², the floor areas of all rooms and storage cupboards in m². Detailed bathroom and WC/cloakroom layouts are required in sufficient detail to demonstrate how the spatial implications of the Accessibility Standards have been met. Fully furnished layouts of other rooms are also required where necessary to demonstrate that the Accessibility Standard has been met.
61. Floor plans for affordable housing should show the full set of furniture, fixtures, activity and circulation space set out in Appendix B2.

Requirements at all Levels

All Levels	
1.1	All homes should provide the minimum Gross Internal Floor Areas set out in Table A1-3.
1.2	All homes providing two or more bed spaces should provide at least one double bedroom.
1.3	All bedrooms should provide the minimum floor areas and room widths set out in Table B.
1.4	General built-in internal storage should meet the requirements of Table C.
1.5	The minimum floor to ceiling height of the main living space should be 2.5m for at least 75% of the floor area (ceilings to kitchen areas which are part of the main living space are not included).

Table A1: Overall Internal Floor Areas

Minimum Gross Internal Floor Areas in Square meters

Flats Or Other Dwellings On One Floor

LEVEL	1	2	3	LEVEL	1	2	3	
studio	38	39	48	1b1p	1 bed space	38	39	48
1 bedroom	47	48	58	1b2p	2 bed spaces	47	48	58
2 bedrooms	60	61	73	2b3p	3 bed spaces	60	61	73
3 bedrooms	73	74	92	2b4p	4 bed spaces	69	70	87
4 bedrooms	88	90	108	3b4p	4 bed spaces	73	74	92
5 bedrooms	101	103	123	3b5p	5 bed spaces	84	86	103
				3b6p	6 bed spaces	93	95	113
				4b5p	5 bed spaces	88	90	108
				4b6p	6 bed spaces	97	99	118
				4b7p	7 bed spaces	106	108	128
				4b8p	8 bed spaces	115	117	138
				5b6p	6 bed spaces	101	103	123
				5b7p	7 bed spaces	110	112	133
				5b8p	8 bed spaces	119	121	143

Table A2: Overall Internal Floor Areas

2 Storey Houses Or Other Dwellings On Two Floors				
LEVEL	1	2	3	
2 bedrooms	68	74	94	
3 bedrooms	81	87	109	
4 bedrooms	94	100	125	
5 bedrooms	107	113	140	
6 bedrooms	120	126	155	

LEVEL		1	2	3
2b3p	3 bed spaces	68	74	94
2b4p	4 bed spaces	77	83	104
3b4p	4 bed spaces	81	87	109
3b5p	5 bed spaces	90	96	120
3b6p	6 bed spaces	99	105	130
4b5p	5 bed spaces	94	100	125
4b6p	6 bed spaces	103	109	135
4b7p	7 bed spaces	112	118	145
4b8p	8 bed spaces	121	127	155
5b6p	6 bed spaces	107	113	140
5b7p	7 bed spaces	121	122	150
5b8p	8 bed spaces	125	131	160
6b7p	7 bed spaces	120	126	155
6b8p	8 bed spaces	129	135	165

Table A3: Overall Internal Floor Areas

3 Storey Houses Or Other Dwellings On Three Floors				
LEVEL	1	2	3	
3 bedrooms	86	93	119	
4 bedrooms	99	106	135	
5 bedrooms	112	119	150	
6 bedrooms	125	132	165	

LEVEL		1	2	3
3b4p	4 bed spaces	86	93	119
3b5p	5 bed spaces	95	102	130
3b6p	6 bed spaces	104	111	140
4b5p	5 bed spaces	99	106	135
4b6p	6 bed spaces	108	115	145
4b7p	7 bed spaces	117	124	155
4b8p	8 bed spaces	126	133	165
5b6p	6 bed spaces	112	119	150
5b7p	7 bed spaces	121	128	160
5b8p	8 bed spaces	130	137	170
6b7p	7 bed spaces	125	132	165
6b8p	8 bed spaces	134	141	175

Notes:

- Space for one WC/cloakroom (in addition to the bathroom) included for:
 - Level 1 and Level 2 homes on one floor designed for five people and above
 - Level 3 homes on one floor designed for four people and above
 - all homes on two or more floors
- Areas with headroom below 1500mm should not be included in the Gross Internal Areas.

Table B: Bedrooms

Minimum floor area (m2)

All dwelling types

LEVELS	1	2	3
---------------	----------	----------	----------

single bedrooms	7.0	7.5	8.5
principal double bedroom	11.0	12.0	13.5
other double and twin bedrooms	11.0	11.5	12.5

Minimum width (m)

All dwelling types.

LEVELS	1	2	3
---------------	----------	----------	----------

single bedrooms	2.15	2.15	2.4
double and twin bedrooms	2.55	2.75	3.0

Table C: Storage

Minimum floor area of built in storage (m2)

All dwelling types

ALL LEVELS

studio	1.0	1.0	1 bed space
1 bedroom	1.5	1.5	2 bed spaces
2 bedrooms	2.0	2.0	3 bed spaces
		2.5	4 bed spaces
3 bedrooms	2.5	2.5	4 bed spaces
		3.0	5 bed spaces
4-6 bedrooms	3.0	3.0	5 bed spaces
		3.5	6 bed spaces
		4.0	7 bed spaces
		4.5	8 bed spaces

Notes:

1. Storage areas with headroom between 900mm and 1500mm to be counted at half of their floor area and areas lower than 900mm not be counted at all.
2. All areas include an allowance of 0.5m2 for fixed services and equipment such as hot water cylinders, boilers and heat exchangers.

ANNEX A2: Model space standard – questions on the technical standards

62. As part of this consultation we are interested in your views as to some aspects of detail relating to the form a national space standard might take, if it is decided that one should be developed. We recommend that respondents also read Chapter 1 of the consultation document on accessibility standards before responding to these questions because these issues are very closely inter-related.
63. Whilst setting out a 'model' space standard to inform debate within this consultation, it should be noted that this represents an initial model only. The accompanying Impact assessment suggests a range of uncertainty as to the potential overall impact of a space standard, including on private and affordable housing costs, and Government intends to undertake further analysis, development and costing following the closure of this consultation if it is decided to take forward further work on a national standard.

Structure

64. The model space standard sets out a range of minimum Gross Internal Areas which are capable of accommodating a standard range of activities, using a standard set of internal furniture and assuming a given number of people are living in that home. The type of home is expressed as a combination of bedrooms (1b = 1 bedroom) and the number of people that can be accommodated by the bedspaces in the dwelling (expressed as p=person bedspaces). A 2 bedroom home with a double and single bedroom would therefore be expressed as 2b3p (two bedrooms, 3 persons).
65. The table is split into three parts showing the most common type of homes for single storey dwellings (flats and bungalows), two storey dwellings (typically houses and maisonettes) and three storey homes (typically houses). This is necessary to reflect the additional spatial impact of stairs and the need for entrance level WC's and other facilities required by the accessibility standards that do not affect one storey dwellings.
66. To accommodate the specific requirements of the three level accessibility standard, the space standard is also defined at three levels (Level 1, Level 2 and Level 3). This is necessary because whereas a space standard tends to define activity spaces, accessibility standards tend to define circulation, bathroom and additional spatial requirements in order to meet varying needs. For instance, Level 3 space standards are specifically designed as a guideline for wheelchair adaptable accommodation (Level 3 accessibility standards). Our industry working

group unanimously supported co-ordinating accessibility standards and space standards in this way.

QA2.1	Do you agree that any space standards, if adopted, should be co-ordinated with the requirements of relevant accessibility standards? Y/N
--------------	---

Reasons for joining requirements for space standards and accessibility standards

- 67. Level 1 space standards are derived from adopting a standard set of furniture requirements, activity spaces assuming full occupancy and the spatial impact of Part M of the Building Regulations.
- 68. Level 2 space standards adopt the same approach (to furniture, activity and occupancy) as Level 1 space standard, combined with the spatial impact of the functional requirements of level 2 of the proposed accessibility standard.
- 69. Level 3 space standards adopt the same approach (to furniture, activity and occupancy) as Level 1 but assumes that the functional requirements of level 3 of the accessibility standard are adopted.
- 70. It was proposed by both the space and accessibility industry working groups that accessibility standards should be amalgamated with space standards (if space standards are to be put in place) so that a requirement for Level 2 accessibility standards would automatically trigger a requirement to also meet level 2 space standards, and the same for Level 3. This would reduce the complexity of compliance / developing a range of standards house types.

Gross internal areas

- 71. The figures set out in the model space standard have been developed in line with the methodology set out in Chapter 2 of the accompanying standards document.

QA2.2	Do you agree with Gross Internal Areas indicated at Level 1, 2 and 3, shown in Table A1-3? If not, please provide reasons for your answer. Y/N
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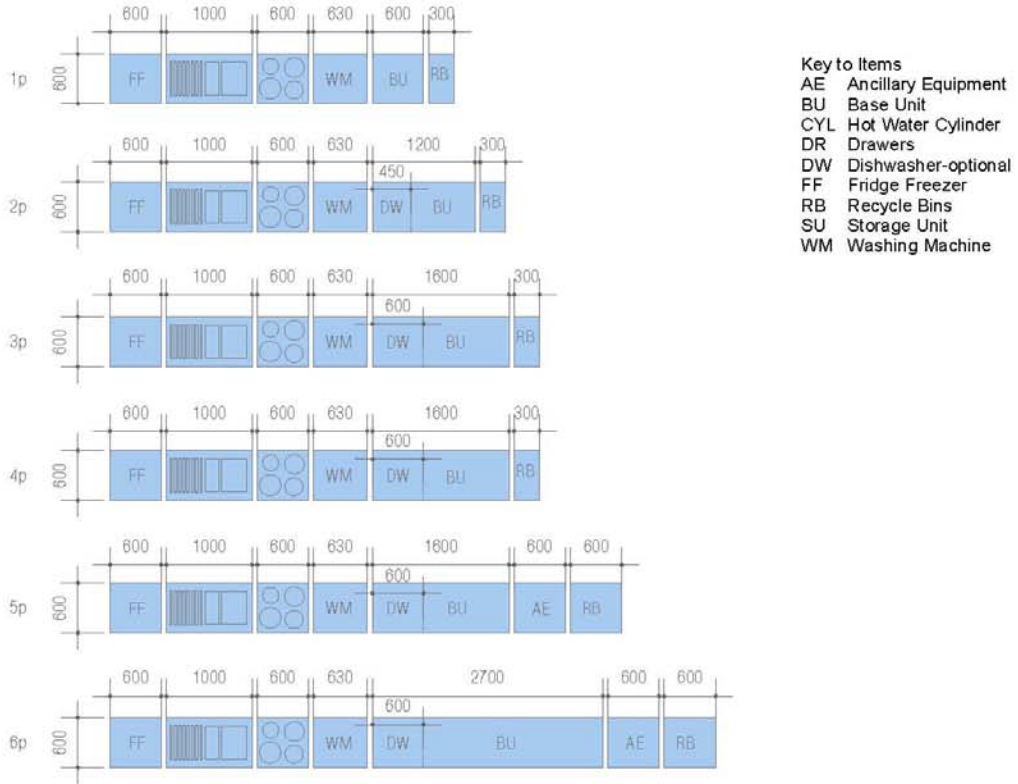
- 72. In order to describe the maximum potential occupancy (total number of bedspaces) of a dwelling it is necessary to define what constitutes an acceptable bedspace. This means defining the minimum size of a room that can provide one bedspace (ie a single bedroom) and the minimum size of a room that provides two bedspaces. Table B in Chapter 2 of the accompanying standards document sets out figures for bedrooms which take into account minimum furniture, fittings, circulation and accessibility requirements. These increase progressively from

Level 1 to Level 3 to take account of the extra circulation space needed in the relevant coordinated 3 tier Accessibility Standards.

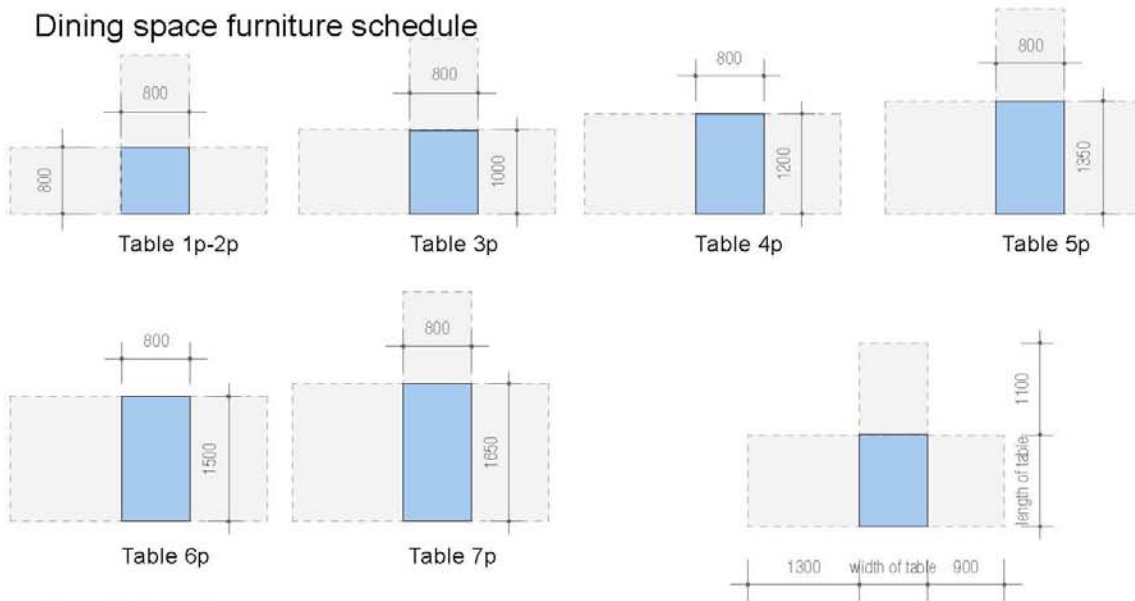
QA2.3	Do you think it is necessary to define minimum areas for bedrooms and do you agree with the areas for bedrooms indicated at Level 1, 2 and 3 in Table 2? Y/N
QA2.4	Are the performance requirements for level 1 of the space standards proposed by the working group pitched at the right level? Please indicate which of the options below you agree with. a) they go too far, and should be reduced b) they are about right c) they don't go far enough
QA2.5	If you do not entirely agree (ie your answer is a) or c), what aspects should be different and why (please provide reasons for your answers, identifying the specific measure by reference number where possible).
QA2.6	Are the performance requirements for level 2 of the space standards proposed by the working group pitched at the right level? Please indicate which of the options below you agree with. a) they go too far, and should be reduced b) they are about right c) they don't go far enough
QA2.7	If you do not entirely agree (ie your answer is a) or c), what aspects should be different and why (please provide reasons for your answers, identifying the specific measure by reference number where possible).
QA2.8	Are the performance requirements for level 3 of the space standards proposed by the working group pitched at the right level? Please indicate which of the options below you agree with. a) they go too far, and should be reduced b) they are about right c) they don't go far enough
QA2.9	If you do not entirely agree (ie your answer is a) or c), what aspects should be different and why (please provide reasons for your answers, identifying the specific measure by reference number where possible).

ANNEX B2 Furniture for use in demonstrating compliance with space standard

Kitchen furniture schedule



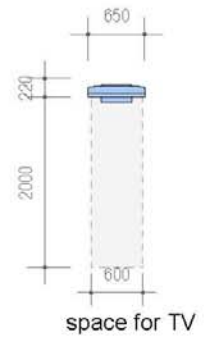
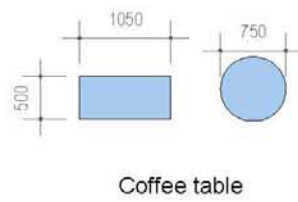
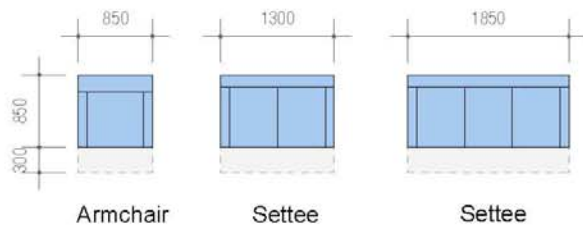
Dining space furniture schedule



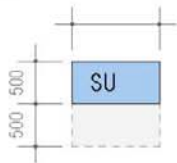
Circulation Zones



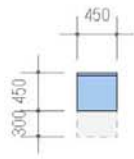
Living space furniture schedule



Length varies (refer to furniture schedule)



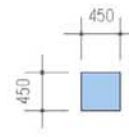
Storage unit



Visitors chair

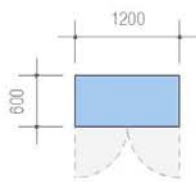
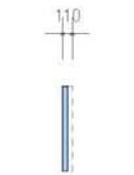
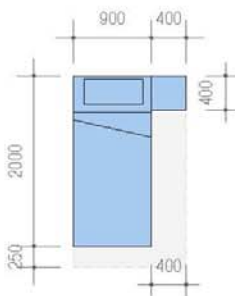
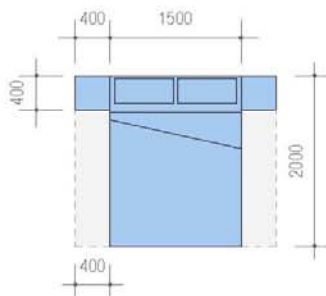


Heat source

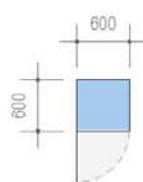


Occasional table

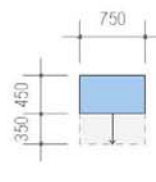
Bedroom space furniture schedule



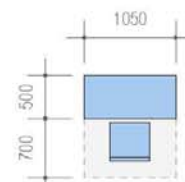
Double wardrobe



Single wardrobe

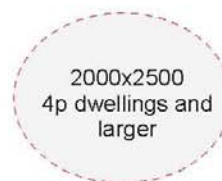


Chest of drawers



Desk and chair

Activity Zones



FURNITURE SCHEDULE

29/04/2013

Type of space	Furniture schedule	Furniture sizes mm	Dwelling Size							+
			1p	2p	3p	4p	5p	6p	7p	
Living Space	arm chair – combination to equal one seat/person	850x850	2	2	3	1	2	3	4	+1
	settee – 2 seat (optional; as above)	850x1300								
	settee – 3 seat (optional; as above)	850x1850				1	1	1	1	
	TV - [dim. Approx. 26" flat]	220x650	1	1	1	1	1	1	1	1
	coffee table	500x1050 or 750 diameter	1	1	1	1	1	1	1	1
	occasional table	450x450					1	1	1	1
	storage units	500x1000/incrementally larger	1000	1000	1000	1500	2000	2000	2000	+
	space for visitor's chair	450x450	2	2	2	2	2	2	2	2
Dining space	dining chair	450x450	2	2	3	4	5	6	7	+
	dining table	800x800 /incrementally larger	800	800	1000	1200	1350	1500	1650	+
Bedrooms										
Double Bedroom	Double bed	2000x1500	n/a	1	1	1	1	1	1	1
	Optional: 2 x single bed	2000x900								
Twin bedroom	bedside table	400x400		2	2	2	2	2	2	2
	desk and chair	500x1050		1	1	1	1	1	1	1
	chest of drawers	450 x750		1	1	1	1	1	1	1
	double wardrobe	600x1200		1	1	1	1	1	1	1
	2 x single bed	2000x900	n/a			2	2	2	2	2
	bedside table	400x400				2	2	2	2	2
	chest of drawers	450 x750				1	1	1	1	1
	table and chair/stool	500x1050				1	1	1	1	1
Single Bedroom	double wardrobe	600x1200				1	1	1	1	1
	single bed	2000x900	1		1	1	1	1	1	1
	bedside table	400x400	1		1	1	1	1	1	1
	chest of drawers	450 x750	1		1	1	1	1	1	1
	table and chair/stool	500x1050	1		1	1	1	1	1	1
	single wardrobe	600x600	1		1	1	1	1	1	1
Total bed spaces			1	2	3	4	5	6	7	+
Kitchen										
Optional:	(1) sink top drainer	600x1000	1000	1000	1000	1000	1000	1000	1000	1000
	(2) cooker space	600x600	600	600	600	600	600	600	600	600
	(3) washing machine position/worktop	600x630	630	630	630	630	630	630	630	630
	(4) other base units	600x length	600	1200	1600	1600	1600	2700	2700	+
	(4a) dishwasher/worktop- (included in 4)	600x length								
	(5) ancillary equipment space	600x length					600	600	1200	1200
	(6) fridge/freezer space	600x600	600	600	600	600	600	600	600	600
	(7) recycling bins space	600x length	300	300	300	300	600	600	600	600
(8) length of fitments (items 1to 7)		3730	4330	4730	4730	5630	6730	7330	+	
Note: Item 3,5,6,7 may be in adjacent rooms to the kitchen										
Bathroom	WC+cistern	500x700	1	1	1	1	1	1	1	1
	Bath	700x1700	1	1	1	1	1	1	1	1
	Wash hand basin	600x400	1	1	1	1	1	1	1	1
Optional:	shower tray	750x750								
Separate toilet	WC+cistern					1	1	1	1	1
	cloakroom basin					1	1	1	1	1
Storage										
	Cumulative total of built-in storage		1	1.5	2	2.5	3	3.5	4	0.5

ANNEX C2: Methodology for generating the minimum gross internal floor areas

73. The minimum Gross Internal Areas in Table A are determined by a combination of the space needed to accommodate the furniture detailed in ANNEX 2A (which is derived from the Housing Quality Indicators and the London Housing Design Guide) and the additional requirements of the proposed Accessibility Standard. They reflect the individual room areas and the amount of general circulation and storage space needed to accommodate these cumulative requirements in a range of dwelling types and sizes.
74. In simple terms, more people need more space. However, the relationship between increased occupancy and extra space is not precisely linear because of other variables which affect the amount of space needed but are not directly linked to occupancy.
75. The variables are as follows:
1. The number of bedspaces (or people)
 2. The number of bedrooms
 3. The number of bathrooms
 4. The number of WC/cloakrooms (and shower rooms)
 5. The number of storeys
76. Each of these variables also has an impact of the amount of circulation space and the area taken up by internal partition walls within each dwelling type.
77. By assigning a numerical value to each variable, the Gross Internal Areas can be generated by a simple calculator which has an in-built 'starter figure'. At each Level, the starter figure varies for one, two and three storey homes to take account of any extra space needed for stairs and, where appropriate, for lifts. This effectively deals with variable 5. It also includes a basic allowance for living, dining and kitchen space, storage and general circulation and partitions.
78. Using the appropriate version of the calculator, only the number of bedspaces, bedrooms, bathrooms and WC/cloakrooms need to be entered for any dwelling type. These values are added to the 'starter figure' to produce the required Gross Internal Areas.
79. The calculator was first developed for Level 2. At this Level, each bedspace/person has a value of 9m^2 . This is made up of 2m^2 of living/dining/kitchen space, 0.5m^2 of storage space and 4m^2 of bedroom space (the difference between the size of a single and a double or twin bedroom). The remaining 2.5m^2 is attributable to extra circulation and partitions.

80. Each bedroom adds a further 4m^2 . This allows the different spatial implications of various combinations of single and double/twin bedrooms to be reflected in the minimum Gross Internal Areas. Independently of the number of bathrooms, WCs or storeys, these two variables together generate a simple pattern.
- 2b3p to 2b4p – add 9m^2
 - 2b4p to 3b4p – add 4m^2
 - 2b4p to 3b5p – add 13m^2 (9+4)
 - 3b5p to 3b6p – add 9m^2
 - 3b6p to 4b6p – add 4m^2
 - 3b5p to 4b6p – add 13m^2 (9+4)
81. Each bathroom has an incremental value of 5m^2 and each WC/cloakrooms or shower, 3m^2 . These, and the bedroom values, also include a small further allowance for the extra circulation and partitioning that is needed when any extra room is added.
82. The starter figures and, where necessary, the incremental values for the four variables, are adjusted downwards for the Level 1 Gross Internal Areas and upwards for the Level 3 Gross Internal Areas.
83. As noted, the spatial variations between the three Levels are triggered by the differences in the corresponding accessibility requirements. This reflects the objectives of the higher Accessibility Standards that imply slightly more generous circulation space throughout the home; not just where specifically defined in the requirements for hallways, bathrooms and WCs.
84. The Gross Internal Areas for two and three storey homes at the higher levels also allow enough space for straight flights of stairs (as distinct from winder or dog-leg configurations). Although this is not a defined requirement at Level 2 of the Accessibility Standard (and is not required by the Lifetime Homes standards), straight flights are generally felt to be safer and more manageable for older people and others with mobility difficulties. The Gross Internal Areas at the higher Levels of the Space Standards therefore include a slightly greater allowance for stairs than those at Level 1.
85. The calculator based methodology described above was developed in 2009 by architects Levitt Bernstein who also developed the concept of a three tier accessibility standard directly linked to a three tier space standard. Although the methodology remains unchanged in principle, the numerical values incorporated into the calculator have been adjusted and refined to reflect the proposed Accessibility Standards as these have been developed through the review process.
86. The Gross Internal Areas at Level 2 are generally consistent with the London Mayor's housing design standards (which incorporate the Lifetime Homes

standards) as published in the Housing Supplementary Planning Guide, 2012. Prior to the Housing Standards Review, Levitt Bernstein's methodology and results at Level 2 were made available to the Greater London Authority and used to inform their minimum Gross Internal Areas. The Level 2 figures remain fully aligned with the London areas for all except three dwelling typologies. In these three cases, which include 1b2p flats, the Mayor's figures depart slightly from the calculator methodology which has been applied elsewhere. These minor discrepancies will be addressed and eliminated in due course, as necessary.

Standard 3: Domestic Security

Contents

Consultation questions

Introduction

Limitation

Requirements

Physical Security: Houses And Maisonettes

- 1.0** Doors, associated doorframes, door locks and door hardware
- 2.0** Windows, associated window frames, window locks and window hardware
- 3.0** Domestic garage – attached to (or forming an integral part of) the house
- 4.0** Lighting: External – attached to and controlled by the house
- 5.0** Bicycle storage (where provided)

Physical Security: Flats

- 6.0** Doors, associated doorframes, door locks and door hardware
- 7.0** Windows, associated window frames, window locks and window hardware
- 8.0** Communal areas within the building that are common to more than one flat
- 9.0** Underground car parking – attached to (or forming an integral part of) the block of flats
- 10.0** Lighting: Internal communal areas that are common to more than one flat and External lighting which is attached to and controlled by the block of flats
- 11.0** Bicycle storage (where provided)

ANNEX A3: Consultation questions on the technical standards

ANNEX B3: Glossary of standardised definitions

Note: In following the guidance in this standard reference should be made to Annex B3: Glossary of standardised definitions.

Introduction

87. A dwelling that is safe and secure provides a positive contribution to the quality of life of its occupants and contributes to the delivery of a more sustainable community. Addressing measures to improve security can make unlawful entry into dwellings physically more difficult and ensure the safety and welfare of occupants.
88. The intention of this standard is to ensure that a reasonable and appropriate level of security can be applied to all new homes. The standard sets out measures to improve the physical security of dwellings, such as robust specification of doors, windows, glazing and locks etc, which help to reduce the risk of unauthorised entry.
89. The proposals in both the consultation document and this technical annex document have been assembled by the working groups and are illustrative, to inform debate during this consultation. They are not Government policy.

Limitation

90. This standard applies only to new homes in England.

Requirements

91. The guidance provided below shall be followed to ensure that the design and construction of homes have a reasonable and appropriate level of security. There are two ways in which these requirements can be satisfied:
 - a. by following the applicable sections (1.0 – 11.0 below) through the use of products manufactured to meet the required product standards and defined component performance as detailed.
 - b. by following the applicable sections (1.0 – 11.0 below) through the use of an independent accredited certification scheme such as ‘The Secured by Design Award for Developers’ for compliance with Section 2 - Secured by Design New Homes 2010 Application.
92. Where the use of an independent certification scheme is utilised, such scheme shall be accredited by the United Kingdom Accreditation Service (UKAS). Local authorities may accept the certification under such schemes as evidence of compliance with the relevant requirements. However, a local authority will wish to establish, in advance of the work, that any such scheme is adequate for the purposes of addressing the domestic security requirements detailed below.

Physical security: houses (Including maisonettes)

1.0 Doors, associated doorframes, door locks and door hardware

SCOPE:

93. For the purposes of security this section covers all external entrance doors, external secondary access doors, associated doorframes, door locks and door hardware. Guidance is also provided to ensure they are fit for purpose.

Note: Where the design and layout of maisonettes goes beyond the scope of 'PHYSICAL SECURITY: HOUSES' reference should be made to the relevant parts of 'PHYSICAL SECURITY: FLATS'.

Requirements at all Levels:

94. All doors, associated doorframes, locks and hardware within the scope of this standard shall be designed, constructed and installed so as to reduce the risk of unauthorised entry.
- i) Doors should be fit for purpose and comply with the relevant material standard ie:
 - BS 4873 (Aluminium)
 - BS 7412 (PVC-U)
 - BS 644 (Timber)
 - BS 6510 (Steel)
 - BS 8529 (Composite)
 - ii) The installation of doors, doorframes, locks, and hardware should be securely fixed in accordance with the manufacturer's specifications.
 - iii) Connection between door and/or frame components which can be easily released from outside should not be used, this includes accessible screw connections.
 - iv) The main entrance door should be fitted with an opening limitation device or door chain which is securely fixed in accordance with the manufacture's specifications and is fit for purpose.
 - v) There should be a means of giving a wide angle view of the area immediately outside the main entrance door of individual dwellings. Acceptable ways include one of the following:

- a. A through-door viewer fitted between 1200mm and 1500mm from the bottom of the door.
 - b. Clear glazing either to part of the door or a convenient window.
 - c. Closed circuit camera-and display.
- vi) For the installation of all doors/frames, for lightweight wall construction - to reduce the risk of breaking through the wall finishes and accessing the locking system, on the internal face of the door, timber or light steel framed walls should incorporate one of the following:
- a) Timber sheathing minimum 9mm thick, or
 - b) expanded metal.

95. The material should be the full height of the door and not less than 600mm measured from the lock(s).

Note:

- For the purposes of this standard, *External Double Doorsets* are a pair of doors serving as an entrance or exit. External furniture operating the full locking mechanism will be present and there will be a dedicated sill/threshold detail. In common with *French Windows* the meeting edge of the two opening doors may be rebated or incorporate a floating mullion detail. Doorsets described as 'double doors' but incorporating a fixed mullion detail will be classified as two separate doors. *External Double Doorsets* should comply with the appropriate requirement (ie entrance or secondary access door) at the appropriate level applied to the house (ie level 1 or level 2).
- For the purposes of this standard, *French Windows* are a pair of casement windows extending to the floor and serving as a portal from a room to an outside space (ie porch, terrace/garden, balcony etc.). Where there is no external furniture and no dedicated sill detail (the sill or threshold detail being the same specification as the frame), the meeting edge of the two opening casements may be rebated or incorporate a fixed or floating mullion. *French Windows* should comply with the appropriate requirement (ie if easily accessible) at the appropriate level applied to the house (ie level 1 or level 2).

Additional requirements at each Level:

Level 1	1.1_L1	<p><u>Entrance doors</u></p> <p>Entrance doors to dwellings should be fitted with one (or more) securely fixed lock(s) and keep(s) or multi-point locking system, which has all of the following:</p> <ul style="list-style-type: none"> a) At least 1000 differs. b) A fixing which, if burst open, would not pull out without breaking the door or its frame. c) A hardened steel bolt or inserts to prevent sawing. d) Latch and deadlocking facility. <p>Locking devices fitted to entrance doors to dwellings should permit</p>
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		<p>emergency egress without the use of a key when the dwelling is occupied.</p> <p>The locking system to entrance doors of dwellings should also provide all of the following functions:</p> <ul style="list-style-type: none"> a) The locking system should hold the door closed on the latch. b) The latch may be withdrawn by a key externally and a thumb turn internally or by a handle both internally and externally. c) The full deadlocking facility should be engaged and operable with a key externally and a thumb turn release or other non-key operated hardware internally. <p>Note: (i) Individual locks which comply with BS 8621 or multi-point locks which comply with PAS 8621 meet these requirements. External handles on multi-point locking systems should be twin or split spindle to avoid operating the latch.</p> <p>1.2_L1 <u>Glazing to external entrance doors and adjacent side windows</u> Any glazing which, if open or broken, would permit release of the locking device on the inside of the door by hand or arm entry should include one pane of laminated glass, securely fixed in accordance with the manufacture's specification.</p> <p>1.3_L1 <u>Secondary access doors</u> Secondary access doors to dwellings should comply with all of the following:</p> <ul style="list-style-type: none"> a) The locking systems should hold the door closed on the latch. b) The latch should be operable by a handle both internally and externally. c) The full deadlocking facility should be engaged and operable with a key both internally and externally. d) Bolts should be fixed securely at both top and bottom of the door on the internal opening edge. Where multi-point locking systems are used bolts may be omitted. <p>Note: (i) Individual locks which comply with BS 3621 or multi-point locks which comply with PAS 3621 meet this requirement. Alternatively, a thumb turn may be used internally in place of key operation. (ii) Individual locks which comply with BS 8621 or multi-point locks which comply with PAS 8621 meet this requirement.</p> <p>External Sliding doors should comply with all of the following:</p> <ul style="list-style-type: none"> a) Be secured by way of multi-point locking system with a minimum three locking points incorporating, hookbolts or shoot bolts. b) Where shoot bolts are fitted they should engage into the head and sill of the door frame. c) An anti-lift device should also be fitted so that doors cannot be lifted from their frame from the outside. <p>1.4_L1 <u>Mail delivery</u> Letter plates where provided should have an aperture a maximum of 260mm x 40mm. The aperture should be located so as to not permit</p>
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		release of the locking device on the inside of the door by hand or arm entry.
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Level 2	1.1_L2	<p><u>Entrance doors</u> Entrance doors should comply with PAS 24:2012.</p>
	1.2_L2	<p><u>Glazing in all entrance doors, secondary access and adjacent side windows</u> All glazing in and adjacent to doors should include one pane of laminated glass, securely fixed in accordance with the manufacturer's specifications. Laminated glass should comply with BS EN 356:2000 Class P1A as part of the doorset or BS 7950 or PAS 24:2012 if manufactured separately.</p>
	1.3_L2	<p><u>Secondary access doors</u> Secondary access doors should also comply with PAS 24:2012, this includes (but is not limited to), the following:</p> <ul style="list-style-type: none"> • French doors • Side and back doorsets • Sliding patio doorsets • The separating door between a conservatory and the dwelling
	1.4_L2	<p><u>Mail delivery</u> Letter plates where provided should be tested as a component part of a doorset that complies with PAS 24:2012. The letter plate aperture should be a maximum of 260mm x 40mm. The letter plate should prevent access relating to associated risks via the letter plate aperture (ie 'Fishing', 'Lock manipulation', 'Arson').</p> <p>The letter plate should be designed and installed to provide the following:</p> <ol style="list-style-type: none"> a) The aperture should be located and/or designed so as to not permit release of the locking device on the inside of the door by hand or arm entry. b) The letter plate should resist the unauthorised retrieval of items (ie letters, keys etc) for a distance of at least 1000mm from the outside face of the door. c) Where there is an increased risk of arson, there should be a box, or other container, on the back of the letter plate to contain the potential fire from accelerants, fireworks, etc. <p>Alternatively, where provided a surface mounted or through-the-wall letter box should be designed and installed to provide the following:</p> <ol style="list-style-type: none"> a) Reasonable resistance to a mechanical forced entry either by forcing open the box or creating an accessible opening, by targeting a weak or vulnerable area should be provided. b) The box should reasonably resist the unauthorised removal of its contents. c) The lock security should be in accordance with BS EN 1303: 2005 including corrigendum August 2009) (minimum requirement is level 3, minimum number of differs). d) The box should provide reasonable resistance to the removal from its fixings.

		e) Where required, the box should be able to contain the potential fire from accelerants, fireworks, etc.
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2.0 Windows, associated window frames, window locks and window hardware

SCOPE:

96. For the purposes of security this section covers windows, associated window frames, window locks and window hardware that are easily accessible. Guidance is also provided to ensure they are fit for purpose.

Requirements at all Levels:

97. All windows, associated window frames, window locks and window hardware within the scope of this standard shall be so designed, constructed and installed so as to reduce the risk of unauthorised entry.
- i) Windows should be fit for purpose and comply with the relevant material standard (including the requirements for basic security) ie:
 - BS 4873:2009 (Aluminium)
 - BS 7412:2007 (PVC-U)
 - BS 644:2012 (Timber)
 - BS 6510:2010 (Steel)
 - ii) The installation of windows, frames, locks, and hardware should be securely fixed in accordance with the manufacturer's specifications.
 - iii) Hinges and fastenings of opening lights of windows should be of a type which prevents them from being opened from the outside when in the closed position.
 - iv) Opening lights on all ground floor windows and other windows which are easily accessible from the outside may be fitted with lockable devices which cannot be released without a key (unless required otherwise at level 2).

Additional requirements at each Level:

Level 1		No additional requirements.
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Level 2	2.1_L2	<u>Windows</u> Ground floor, basement and easily accessible windows (including easily accessible roof lights) should comply with BS 7950/PAS 24:2012 and should include both of the following:
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		<p>a) Laminated safety glazing (6.4mm minimum) in windows below 800mm (from floor level) or 1500mm if within 400mm of a doorframe – that complies with BS EN 356:2000 rating P1A.</p> <p>b) Non-key locking hardware on designated accessible emergency egress windows together with laminated glazing conforming with the requirements in requirement (a) above.</p> <p>Note:</p> <p>(i) BS 7950 has been withdrawn (31/08/12). An agreement has been reached from all of the UK Certification Bodies that they will complete the transition from BS 7950 to PAS 24:2012 by the end of the year (2013).</p> <p>(ii) Windows that comply with BS 7950 should comply with BS 6375:2009 Parts 1 and 2.</p> <p>(iii) Windows falling outside the scope of the British Standard eg. horizontal sliding windows in BS 7950 should be assessed against BS 7950/PAS 24:2012. Any such assessment should include the appropriate fitness for purpose standard.</p>
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3.0 Domestic garage – attached to (or forming an integral part of) the house

SCOPE:

98. For the purposes of security this section covers a domestic garage that is attached (or forming an integral part of) a house, any external vehicular and pedestrian access door that forms part of the garage and any link-door provided between the garage and the house.

Requirements at all Levels:

99. All vehicular and pedestrian doors and windows, associated door and window frames, locks and hardware within the scope of this standard shall be so designed, constructed and installed so as to reduce the risk of unauthorised entry.

- i) Vehicular garage doors, doorframes, locks and hardware should provide reasonable resistance against unauthorised entry and be fit-for-purpose.
- ii) Vehicular garage doors, doorframes, locks and hardware should be securely fixed in accordance with the manufacturer's specifications.
- iii) Any external pedestrian access door to the garage or a link-door provided between the garage and the house should comply with the requirements for 'secondary external access doors' at the appropriate level applied to the house (ie level 1 or level 2).

- iv) Where easily accessible, windows to the garage should comply with the requirements for 'easily accessible windows' or provide an equivalent level of protection against unauthorised access at the appropriate level applied to the house (ie level 1 or level 2).

Additional requirements at each Level:

Level 1		No additional requirements.
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Level 2	3.1_L2	<p><u>The vehicular access doorsets</u> The vehicular door should be fitted with one (or more) securely fixed lock(s) system, which has one of the following</p> <ul style="list-style-type: none"> a) At least 1000 differs ("Equivalent" lock/hardware standard and class* BS 3621 and BS 8621) b) An exposed padlock or other removable locking component that forms an integral component of the doorset and provides an equivalent level of resistance against forced entry as item (a) above. c) An electronic locking device(s), eg. locks operated by key pads, swipe card readers or biometric reader, the device(s), with associated access control system that forms an integral component of the doorset and provides an equivalent level of resistance against forced entry as item (a) above.
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4.0 Lighting: External – attached to and controlled by the house

SCOPE:

100. For the purposes of security this section covers external lighting that is attached to and controlled by the house. Guidance is also provided to ensure they are fit for purpose.

Requirements at all Levels:

101. All external lighting within the scope of this standard shall be so designed, constructed and installed so as to reduce the risk of unauthorised entry.
- i) The electrical installation shall be provided in accordance with relevant regulations.
 - ii) External lighting with manual switching with an efficacy of greater than 45 Lumens per circuit watt should be installed to illuminate the 'main entrance door'.

Additional requirements at each Level:

Level 1	No additional requirements.
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Level 2	4.1_L2	<p><u>Lighting</u> Low energy photo-electric cell controlled lighting should be installed to illuminate all external doors. Low energy photo-electric cell controlled lighting should also be installed to illuminate car parking, bicycle storage (where provided) and footpaths leading to dwellings when they are directly adjacent to the dwelling.</p> <p>The photo electric cell (dusk to dawn) should include a switched manual override control.</p>
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5.0 Bicycle storage (where provided)

SCOPE:

102. For the purposes of security this section covers bicycle(s) storage where provided. Guidance is also provided to ensure they are fit for purpose.

Requirements at all Levels:

103. Where provision is made for the purposes of bicycle storage within the scope of this standard, the storage shall be so designed, constructed and installed so as to reduce the risk of unauthorised entry/removal.

- i) Doors, doorframes, locks, and hardware applicable to the storage of a bicycle(s) shall be so designed, constructed and installed so as to reduce the risk of theft.

Additional requirements at each Level:

Level 1	No additional requirements.
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Level 2	4.1_L2	<p><u>Bicycle storage</u> <u>Where provided</u>, bicycle storage should include an appropriately located, securely fixed ground anchor which is fit for purpose.</p>
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Physical security: flats

6.0 Doors, associated doorframes, door locks and door hardware

SCOPE:

104. For the purposes of security this section covers all external communal entrance doors and secondary external access doors, all individual flat entrance doors and secondary access doors that provide access to the flat from communal areas, associated doorframes, door locks and door hardware. Guidance is also provided to ensure they are fit for purpose.

Requirements at all Levels:

105. All doors, associated doorframes, locks and door hardware within the scope of this standard shall be so designed, constructed and installed so as to reduce the risk of unauthorised entry.

- i) Doors should be fit for purpose and comply with the relevant material standard ie:
 - BS 4873 (Aluminium)
 - BS 7412 (PVC-U)
 - BS 644 (Timber)
 - BS 6510 (Steel)
 - BS 8529 (Composite)
- ii) The installation of all doors, doorframes, locks, and hardware should be securely fixed in accordance with the manufacturer's specifications.
- iii) Connection between door and/or frame components which can be easily released from outside should not be used, this includes accessible screw connections.
- iv) The entrance door to the individual flat should be fitted with an opening limitation device or door chain which is securely fixed in accordance with the manufacture's specifications and is fit for purpose.

Note:

In sheltered accommodation opening limitation devices should not inhibit emergency access. Alternative methods for residents to identify and communicate with visitors, without opening their door, should be considered in place of opening limitation devices. Where the sheltered accommodation incorporates a primary level of security eg. access control with audio and visual

verification then it is acceptable to omit the requirement for a door chain or limiter to facilitate emergency access

- v) There should be a means of giving a wide angle view of the area immediately outside the door to the individual flat. Acceptable ways include one of the following;
 - a) A through-door viewer fitted between 1200mm and 1500mm from the bottom of the door.
 - b) clear glazing either to part of the door or a convenient window.
 - c) closed circuit camera-and display.

- vi) Where magnetic or solenoid access control locks are installed to communal entrance doors and communal secondary external access doors, they should comply with both of the following:
 - a) Any reader should be contained within a vandal resistant housing.
 - b) All such systems should include a battery back up in the event of a power failure to operate the system for a minimum period of 24 hours. In the event of an initial power failure the locks should remain in the secure mode, however once the battery back up ceases to operate the system should revert to a safe (unlocked) mode.

- vii) For the installation of all doors/frames, for lightweight wall construction - to reduce the risk of breaking through the wall finishes and accessing the locking system, on the internal face of the door, timber or light steel framed walls should incorporate one of the following:
 - a) timber sheathing minimum 9mm thick, or
 - b) expanded metal.

The material should be the full height of the door and not less than 600mm measured from the lock(s).

Note:

- For the purposes of this standard, *External Double Doorsets* are a pair of doors serving as an entrance or exit. External furniture operating the full locking mechanism will be present and there will be a dedicated sill/threshold detail. In common with *French Windows* the meeting edge of the two opening doors may be rebated or incorporate a floating mullion detail. Doorsets described as 'double doors' but incorporating a fixed mullion detail will be classified as two separate doors. *External Double Doorsets* should comply with the appropriate requirement (ie entrance or secondary access door) at the appropriate level applied to the block of flats (ie level 1 or level 2).

- For the purposes of this standard, French Windows are a pair of casement windows extending to the floor and serving as a portal from a room to an outside porch, terrace/garden or balcony. Where there is no external furniture and no dedicated sill detail (the sill or threshold detail being the same specification as the frame), the meeting edge of the two opening casements may be rebated or incorporate a fixed or floating mullion. *French Windows* should comply with the appropriate requirement (ie if easily accessible) at the appropriate level applied to the block of flats (ie level 1 or level 2).

Additional requirements at each Level:

Level 1	1.1_L1	<p>Entrance doors</p> <p>Entrance doors and secondary access doors to communal areas should be fitted with a multi-point locking system which has all of the following:</p> <ul style="list-style-type: none"> a) At least 1000 differs. b) A fixing which, if burst open, would not pull out without breaking the door or its frame. c) A hardened steel bolt or inserts to prevent sawing. d) Latch and deadlocking facility. <p>Locking devices fitted to communal entrance doors and communal secondary external doors (which form part of the means of escape) should permit emergency egress without the use of a key.</p> <p>The locking system to communal entrance doors and communal secondary external doors should also provide all of the following functions:</p> <ul style="list-style-type: none"> a) The locking system should hold the door closed on the latch. b) The latch may be withdrawn by a key externally and a thumb turn or handle internally. c) The full deadlocking facility should be engaged and operable with a key externally and the thumb turn release or other non-key operated hardware internally. <p>Note:</p> <p>(i) Locks which comply with BS 8621 or multi-point locks which comply with PAS 8621, meet these requirements.</p> <p>Entrance doors to individual flats should be fitted with one (or more) securely fixed lock(s) and keep(s) or a multi-point locking system, which has all of the following:</p> <ul style="list-style-type: none"> a) At least 1000 differs. b) A fixing which, if burst open, would not pull out without breaking the door or its frame. c) A hardened steel bolt or inserts to prevent sawing. d) Latch and deadlocking facility. <p>Locking devices fitted to entrance doors to individual flats should permit emergency egress without the use of a key when the dwelling is occupied.</p>
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		<p>The locking system to entrance doors to individual flats should also provide the following functions depending on the flat type:</p> <ul style="list-style-type: none"> • Flats with an alternative means of escape via a door and flats opening direct to outside without an alternative means of escape via a door should comply with all of the following: <ul style="list-style-type: none"> a) The locking system should hold the door closed on the latch. b) The latch may be withdrawn by a key externally and a thumb turn internally or by a handle both internally and externally. c) The full deadlocking facility should be engaged and operable with a key externally and a thumb turn release or other non-key operated hardware internally. <p>Note: (i) Individual locks which comply with BS 8621 or multi-point locks which comply with PAS 8621 meet these requirements.</p> <ul style="list-style-type: none"> • Flats opening onto a communal access without an alternative means of escape should comply with all of the following: <ul style="list-style-type: none"> a) The door should be held closed either on a latch operable with a handle both internally and externally or a roller bolt so that the door cannot slam shut locking the homeowner out without a key. b) The full deadlocking facility should be engaged and be operable with a key externally and a-thumb turn release or other non-key operated hardware internally. <p>Note: (i) Locks which comply with BS 8621 or multi-point locks which comply with PAS 8621, meet these requirements.</p> <p><u>Glazing in entrance doors (including entrance doors to individual flats) and adjacent side windows</u> Any glazing which, if open or broken, would permit release of the locking device on the inside of the door by hand or arm entry should include one pane of laminated glass, securely fixed in accordance with the manufacture's specification.</p> <p><u>Secondary access doors to communal and secondary access doors to individual flats</u> Secondary access doors should comply with all of the following:</p> <ul style="list-style-type: none"> a) The locking systems should hold the door closed on the latch. b) The latch should be operable by a handle both internally and externally. c) The full deadlocking facility should be engaged and operable with a key both internally and externally. d) Bolts should be fixed securely at both top and bottom of the door on the internal opening edge. Where multi-point locking systems are used bolts may be omitted. <p>Note: (i) Individual locks which comply with BS 3621 or multi-point locks which comply with PAS 3621 meet requirements a-c above. Alternatively, a thumb turn may be used internally in place of key</p>
	1.2_L1	
	1.3_L1	

	1.4_L1	<p>operation.</p> <p>(ii) Individual locks which comply with BS 8621 or multi-point locks which comply with PAS 8621 meet this requirements a-c above.</p> <p>External sliding doors should comply with all of the following:</p> <ol style="list-style-type: none"> Be secured by way of multi-point locking system with a minimum three locking points incorporating, hookbolts or shoot bolts. Where shoot bolts are fitted they should engage into the head and sill of the door frame. An anti-lift device should also be fitted so that doors cannot be lifted from their frame from the outside. <p>Mail delivery</p> <p>Letter plates to individual flats and communal postal delivery facilities where provided should have an aperture a maximum of 260mm x 40mm. The aperture should be located so as to not permit release of the locking device on the inside of the door by hand or arm entry.</p> <p>Alternatively, where provided surface mounted or through the wall letter boxes/letter box banks should provide all of the following:</p> <ol style="list-style-type: none"> Reasonable resistance to a mechanical forced entry either by forcing open the box or creating an accessible opening, by targeting a weak or vulnerable area. The box should reasonably resist the unauthorised removal of its contents. The box should provide reasonable resistance to the removal from its fixings.
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Level 2	1.1_L2	<p><u>Entrance doors (and communal secondary access doors)</u></p> <p>For communal entrance and secondary access doors to buildings containing up to 10 flats Entrance and secondary access doors to communal areas should comply with PAS 24:2012, in addition the door should comply with all of the following:</p> <ol style="list-style-type: none"> Have automatic closing. Incorporates an automatic deadlocking lock, with an internal thumb turn, knob, or handle. <p>For communal entrance doors and secondary access doors to communal areas of buildings containing more than 10 flats Entrance and secondary access doors to communal areas should comply with PAS 24:2012, in addition the door should comply with all of the following:</p> <ol style="list-style-type: none"> Have automatic closing. Fitted with an automatic deadlocking lock, with an internal thumb turn, knob, or handle. The door should be fitted with one (or more) securely fixed lock(s) system, which has at least 5000 differs. If the door is secured using electronic locking device(s), eg. locks operated by key pads, swipe card readers or biometric
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		<p>reader, the device(s) and any associated access control system, should be resistant to attack when installed in accordance with the manufacturer's instructions, providing an equivalent level of resistance against forced entry as item (c) above.</p> <p>e) Where components of the electronic locking device(s) and associated access control system(s) are likely to be accessible from the outside, those elements should provide the equivalent resistance against forced entry as item (c) above.</p> <p>Note: (i) External entry should be restricted to those utilising the correct key, key code, or other access control media such as key fob, proximity reader or any combination thereof.</p> <p>Entrance doors to individual flats Entrance doors should comply with PAS 24:2012.</p> <p>Locks to entrance doors to individual flats on the ground floor should meet the same physical, locking and fixing specification as 'entrance doors' ie internal key locking/unlocking - dependent on the flat having appropriate alternative means of escape.</p> <p>Locks to entrance doors to individual flats above ground floor should meet the same physical, locking and fixing specification as 'entrance doors'. In addition the lock hardware should be operable from both sides of an unlocked door without the use of a key (utilising a roller latch or latch operable from both sides of the doorset by a handle).</p> <p>Note: (i) Locking systems that require the use of a key to gain access to the dwelling when not in the fully secure function (that comply with PAS 24) are <u>NOT</u> acceptable if the entrance door is the only means of escape. (ii) The only function that a key should have is to lock and unlock the door from the fully secure position from the outer face of the door when leaving an empty dwelling or returning to a secure dwelling (occupied or unoccupied).</p> <p><u>Glazing in all entrance doors, secondary access doors and adjacent side windows (including secondary access doors)</u> All glazing in and adjacent to doors should include one pane of laminated glass, securely fixed in accordance with the manufacturer's specifications. Laminated glass should comply with BS EN 356:2000 Class P1A as part of the doorset or BS 7950 or PAS 24:2012 if manufactured separately.</p> <p>1.2_L2</p> <p><u>Secondary access doors to individual flats</u> Secondary access doors should comply with PAS 24:2012, this includes (but is not limited to), the following:</p> <ul style="list-style-type: none"> • French doors • Side and back doorsets • Sliding patio doorsets • Any secondary door between the flat and the communal area <p>1.3_L2</p>
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	1.4_L2	<p>Mail delivery</p> <p>Letter plates where fitted should be tested as a component part of a doorset that complies with PAS 24:2012. The letter plate aperture should be a maximum of 260mm x 40mm. The letter plate should prevent access relating to associated risks via the letter plate aperture (ie 'Fishing', 'Lock manipulation', 'Arson').</p> <p>The letter plate should be designed and installed to provide the following:</p> <ul style="list-style-type: none"> a) The aperture should be located and/or designed so as to not permit release of the locking device on the inside of the door by hand or arm entry. b) The letter plate should resist the unauthorised retrieval of items (ie letters, keys etc) for a distance of at least 1000mm from the outside face of the door. c) Where there is an increased risk of arson, there should be a box, or other container, on the back of the letter plate to contain the potential fire from accelerants, fireworks, etc. <p>Alternatively, where provided a surface mounted letter box bank or through-the-wall letter box bank should be designed and installed to provide the following:</p> <ul style="list-style-type: none"> a) Reasonable resistance to a mechanical forced entry either by forcing open the box or creating an accessible opening, by targeting a weak or vulnerable area. b) The letter box bank should reasonably resist the unauthorised removal of its contents. c) The lock security should be in accordance with BS EN 1303: 2005 including corrigendum August 2009) (minimum requirement is level 3, minimum number of differs). d) The box should provide reasonable resistance to the removal from its fixings. e) Where required, the letter box bank should be able to contain the potential fire from accelerants, fireworks, etc.
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7.0 Windows, associated window frames, window locks and window hardware

SCOPE:

106. For the purposes of security this section covers windows, associated window frames, window locks and window hardware that are easily accessible. Guidance is also provided to ensure that they are fit for purpose.

Requirements at all Levels:

107. All Windows, window frames, window locks and associated window hardware within the scope of this standard shall be so designed, constructed and installed so as to reduce the risk of unauthorised entry.
- i) Windows should be fit for purpose and comply with the relevant material standard (including the requirements for basic security) ie:
 - BS 4873:2009 (Aluminium)
 - BS 7412:2007 (PVC-U)
 - BS 644:2012 (Timber)
 - BS 6510:2010 (Steel)
 - ii) The installation of windows, window frames, locks and hardware should be securely fixed in accordance with the manufacturer's specifications.
 - iii) Hinges and fastenings of opening lights of windows should be of a type which prevents them from being opened from the outside when in the closed position.
 - iv) Opening lights on all ground floor windows and other windows which are readily accessible from the outside may be fitted with lockable devices which cannot be released without a key.

Additional requirements at each Level:

Level 1		No additional requirements.
Level 2	2.1_L2	<p><u>Windows</u> Ground floor, basement and easily accessible windows (including easily accessible roof lights) should comply with BS 7950/PAS 24:2012 and should include both of the following:</p> <ol style="list-style-type: none"> a) Laminated safety glazing (6.4mm minimum) in windows below 800mm (from floor level) or 1500mm if within 400mm of a doorframe – that complies with BS EN 356:2000 rating P1A. b) Non-key locking hardware on designated accessible emergency egress windows together with laminated glazing conforming with the requirements in requirement (a) above. <p>Note: (i) BS 7950 has been withdrawn (31/08/12). An agreement has been reached from all of the UK Certification Bodies that they will complete the transition from BS 7950 to PAS 24:2012 by the end of the year (2013). (ii) Windows that comply with BS 7950 should comply with BS 6375:2009 Parts 1 and 2.</p>

		(iii) Windows falling outside the scope of the British Standard eg. horizontal sliding windows should be assessed against BS 7950/PAS 24:2012. Any such assessment shall include the appropriate fitness for purpose standard.
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8.0 Communal areas within the building that are common to more than one flat

SCOPE:

108. For the purposes of security this section covers the internal communal areas that are common to more than one flat.

Requirements at all Levels:

109. The design and layout of internal communal areas for blocks of flats form part of a hierarchy of defensible space and shall be so designed so as to reduce the risk of unauthorised entry.

- i) The layout should be arranged so as to discourage casual intrusion by non residents, minimising the number of external entrances (whilst taking into account resident's convenience and fire safety), with all unnecessary entrances omitted.
- ii) Where communal facilities are provided on the ground floor, such as residents' communal lounges, they should be located to enhance natural surveillance of entrances, entrance lobbies and external areas.
- iii) Bin stores and chutes, service ducts and panels, pipes, and door entrance canopies should be designed to eliminate the opportunity for unauthorised access and climbing.

Additional requirements at each Level:

Level 1		No additional requirements.
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Level 2	3.1_L2	<p>Access Where required within this section, an access control system should be installed in accordance with the requirements detailed in section 6.0 (v) of this standard.</p> <ul style="list-style-type: none"> • Buildings containing four or more flats should incorporate an access control system, with an electronic lock release and entry phone linked to the flats. Access control is not normally required below this, unless there is a flat with a floor level higher than 4.5 metres or the accommodation is intended for the elderly and/or
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	3.2_L2	<p>persons with disabilities.</p> <ul style="list-style-type: none"> • Buildings containing more than ten flats using a common entrance, one of the following should be applied: <ul style="list-style-type: none"> • an access control system with audio visual verification • a concierge system <p>Layout For the internal communal circulation space within low, medium and high rise blocks of flats, the access staircases should be linked to the minimum number of dwellings.</p>
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9.0 Underground car parking – attached to (or forming an integral part of) the block of flats

SCOPE:

110. For the purposes of security this section covers underground car parking that is attached to (or forming an integral part of) a block of flats, any external vehicular and pedestrian access door/shutter that forms part of and is attached to the underground car parking and any link-door/shutter provided between the underground car park and the block of flats. Guidance is also provided to ensure they are fit for purpose.

Requirements at all Levels:

111. All vehicular and pedestrian doors/shutters, associated door/shutter frames, windows, locks, and hardware within the scope of this standard shall be so designed, constructed and installed so as to reduce the risk of unauthorised entry.
- i) Unauthorised access into the car park should be restricted.
 - ii) The layout should be arranged so as to discourage casual intrusion by non residents, minimising the number of external entrances (whilst taking into account resident's convenience and fire safety), and all unnecessary entrances eliminated.
 - iii) Vehicular garage doors/shutters should provide reasonable security against unauthorised entry.
 - iv) Any external pedestrian access door/shutter to the car park or a door/shutter provided between a car park and a block of flats should comply with the requirements for 'secondary external access doors' at the appropriate level applied to the block of flats (ie level 1 or level 2).

- v) Where easily accessible windows/openings are provided to the car park they should comply with the requirements for 'easily accessible windows' or provide an equivalent level of protection against unauthorised access at the appropriate level applied to the block of flats (ie level 1 or level 2).

Additional requirements at each Level:

Level 1		No additional requirements.
Level 2	<p>3.1_L2</p> <p>3.2_L2</p>	<p><u>Access</u> Unauthorised access into the car park should be restricted by the use of an access control system to all pedestrian and vehicular entrances.</p> <p><u>Gates and roller shutters</u> Inward opening automatic gates or roller grilles should comply with both of the following:</p> <ul style="list-style-type: none"> a) be located at the building line or at the top of ramps to avoid the creation of a recess. b) be capable of being operated remotely by the driver whilst sitting in the vehicle, the operation speed of the gates or shutters should be sufficient to avoid tailgating by other vehicles. <p>Automatic roller shutters should be fitted with one (or more) securely fixed lock(s) system, which comprises one of the following:</p> <ul style="list-style-type: none"> a) At least 5000 differs. b) An exposed padlock or other removable locking component that forms an integral component of the doorset and provides an equivalent level of resistance against forced entry as item (a) above. c) An electronic locking device(s), eg. locks operated by key pads, swipe card readers or biometric reader, the device(s), with associated access control system forms an integral component of the doorset and provides an equivalent level of resistance against forced entry as item (a) above. <p>The vehicle access doorsets (including roller shutters and up-and-over doors) should be fitted with one (or more) securely fixed lock(s) system, which comprises one of the following:</p> <ul style="list-style-type: none"> a) At least 1000 differs ("Equivalent" lock/hardware standard and class* BS 3621 and BS 8621) b) An exposed padlock or other removable locking component that forms an integral component of the doorset and provides an equivalent level of resistance against forced entry as item (a) above. c) An electronic locking device(s), eg. locks operated by key pads, swipe card readers or biometric reader, the device(s), with associated access control system forms an integral component of the doorset and provides an equivalent level of resistance against forced entry as item (a) above. <p>Any internal door that provides access to the residential floors should have an access control system and meet the physical requirements for</p>

		communal entrance door standards as described above - subject to requirements for means of escape.
	3.3_L2	<p><u>CCTV</u> For large developments where closed circuit television is installed, the residents should be able to monitor the car park from individual dwelling units. If no formal monitoring agreement is planned - such a system would only be practical if there is a planned management service for the development.²</p>
	3.4_L2	<p><u>Car park lighting</u> Car park lighting should comply with the levels recommended by BS 5489-1:2013.</p>
	3.5_L2	<p><u>Finishes</u> Walls and ceilings should have light colour finishes to maximise the effectiveness of the lighting as this will reduce the luminaries required to achieve an acceptable light level.</p>

² Where CCTV is installed developers should consider guidance in the Home Office CCTV Code: https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/204775/Surveillance_Camera_Code_of_Practice_WEB.pdf

10.0 Lighting: Internal communal areas that are common to more than one flat and external lighting which is attached to and controlled by the block of flats

SCOPE:

112. For the purposes of security this section covers internal communal areas that are common to more than one flat and external lighting that is attached to and controlled by the block of flats. Guidance is also provided to ensure they are fit for purpose.

Requirements at all Levels:

113. All lighting within the scope of this standard shall be so designed, constructed and installed so as to reduce the risk of unauthorised entry.

- i) The electrical installation shall be provided in accordance with relevant regulations.
- ii) 24 Hour low energy photo-electric cell controlled lighting should be installed to illuminate the internal communal areas.
- iii) External lighting with manual switching with an efficacy of greater than 45 Lumens per circuit watt should be installed to illuminate the 'main entrance door'.

Additional requirements at each Level:

Level 1	No additional requirements.	
Level 2	4.1_L2	<p>Lighting Lighting should be installed to illuminate all external doors, car parking and communal footpaths leading to block of flats (when directly adjacent to the block of flats).</p> <p>External lighting should be switched using a photo electric cell (dusk to dawn) with a manual override.</p>

11.0 Bicycle storage (where provided)

SCOPE:

114. For the purposes of security this section covers bicycle(s) storage where provided. Guidance is also provided to ensure they are fit for purpose.

Requirements at all Levels:

115. Where storage is provided for the purposes of bicycle storage within the scope of this standard, the storage shall be so designed, constructed and installed so as to reduce the risk of unauthorised entry.

- i) Doors, doorframes, locks, and hardware applicable to the storage of a bicycle(s) shall be so designed, constructed and installed so as to reduce the risk of theft.

Additional requirements at each Level:

Level 1	No additional requirements.
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Level 2	4.1_L2	<u>Bicycle storage</u> Where provided, cycle storage should be provided with both of the following: <ul style="list-style-type: none">a) A securely fixed ground anchor fit-for-purpose.b) The store should be lit at night using vandal resistant, dedicated energy efficient light fittings and energy efficient lamps, such as Compact Fluorescent Lamps.
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Annex A3: Consultation questions on the technical standards

QA3.1	<p>Are the performance requirements for the baseline security standard proposed by the working group pitched at the right level? Please indicate which of the options below you agree with.</p> <p>a) they go too far, and should be reduced b) they are about right c) they don't go far enough</p>
QA3.2	<p>If you do not entirely agree, (ie your answer is a) or c), what aspects should be different and why (please provide reasons for your answers, identifying the specific measure by reference number where possible).</p>
QA3.3	<p>Are the performance requirements for the higher level of the security standards proposed by the working group pitched at the right level? Please indicate which of the options below you agree with.</p> <p>a) they go too far, and should be reduced b) they are about right c) they don't go far enough</p>
QA3.4	<p>If you do not entirely agree, (ie your answer is a) or c), what aspects should be different and why (please provide reasons for your answers, identifying the specific measure by reference number where possible).</p>

ANNEX B3: Standardised definitions applying at all levels.

Entrance doors	The primary entrance that provides access to a house or flat.
Secondary access doors	Houses Any door other than the entrance door that provides direct access to a house from outside. Flats Any door other than the entrance door to the individual flat that provides direct access to an individual flat from the common areas of a block of flats or direct from outside.
Fishing	Whereby arm/hand and tool are pushed through the letter plate aperture to steal items such as house and vehicle keys from a hall table with the intention of either entering the house or stealing the vehicle or both
Lock manipulation	Whereby arm/hand and or tool are used through the letter plate aperture to turn the thumb turn on the back of the lock (if one is fitted) to open the door
Arson (Relating to attack via a door)	Whereby the arsonist pours accelerant or pushes a firework through the letter plate aperture.

Standard 4: Water Efficiency

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Application

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Annex A4: Consultation questions on the technical standards

Introduction

116. This standard is intended for application in new homes in England. The proposals in both the consultation document and this technical document have been assembled by the working groups and are illustrative, to inform debate during this consultation. They are not Government policy.

Background

117. Minimum water efficiency standards for new dwellings were introduced into the Building Regulations in 2010. Requirement G2 of Schedule 1 to the Building Regulations requires that:

“Reasonable provision must be made by the installation of fittings and fixed appliances that use water efficiently for the prevention of undue consumption of water.”

118. Regulation 36 requires that:

“...the potential consumption of wholesome water by persons occupying a dwelling...must not exceed 125 litres per person per day, calculated in accordance with the methodology set out in the document “The Water Efficiency Calculator for New Dwellings” ...”

119. The Water Calculator methodology is often referred to as a whole-house approach. From [insert date] the guidance in Approved Document G has provided

for an alternative ‘fittings-based’ way of demonstrating compliance. This provides a list of performance figures for key water fittings that if not exceeded would show the water efficiency provision has been met.

120. Where the fittings based standard is to be used, fittings provided must be no more than the values in the table below. If they are not the Water Calculator must be completed to demonstrate compliance. Similarly, where waste disposal units, water softeners or water re-use is specified the Water Calculator must be completed.

Water Fitting	National Base Level
WC	6/4 litres dual flush or 4.5 litres single flush
Shower	10 l/min
Bath	185 litres
Basin Taps	6 l/min
Sink taps	8 l/min
Dishwasher	1.25 l/place setting
Washing Machine	8.17 l/kilogram

Local requirements

121. Local planning authorities are able to require a local water efficiency standard over and above the national baseline established by the Building Regulations. The standard must be specified in terms of both a whole-house standard and a fittings-based one and is equivalent to what was the minimum water efficiency performance associated with Code Level 3 of the Code for Sustainable Homes. The local standard should require that:

- water consumption is no more than 110 litres per person per day (including external water use) as estimated using the Water Calculator methodology, or
- all water fittings do not exceed the performance set out in the table below³:

³ Subject to the conditions at paragraph [120].

Water Fitting	Additional Local Level
WC	4/2.6 litres dual flush
Shower	8 l/min
Bath	170 litres
Basin Taps	5 l/min
Sink taps	6 l/min
Dishwasher	1.25 l/place setting
Washing Machine	8.17 l/kilogram

122. No other different or higher standard relating to water efficiency can be required.

Application

123. New homes are unlikely to represent a significant proportion of total water consumption in an area. Requiring tighter standards and additional cost on new homes is very unlikely, on its own, to prove an effective response to more general water demand pressures. However, the impact of additional demand caused by new homes can be significant, particularly in water scarce areas. Therefore consideration of how this impact can be mitigated necessarily forms part of the longer term plans put in place by water companies to manage demand and supply. The need for infrastructure for water supply and wastewater treatment is also a consideration for local planning authorities when preparing local plans and assessing proposals for new development in their area. However, a planning requirement of this sort should only be imposed where it is part of a wider approach to water efficiency as set out in the local water undertaker's water resources management plan.

124. Any water efficiency requirement should be included in a local plan. It will therefore be subject to the procedures and scrutiny associated with such documents. In particular, in establishing the need for a local water efficiency requirement, a local planning authority must be able to demonstrate at the examination of the plan that:

- the standard is required to address a clear problem in its area (or part of its area)
- it is consistent with a wider approach to water efficiency as set out in the local water undertaker's water resources management plan

- it follows consultation with the local water undertaker, developers and the Environment Agency.

Cost and viability

125. As with other local standards, imposition of a water efficiency standard is subject to a viability test. Local planning authorities are responsible for carrying out this test and the figures they use. The Government has estimated that the additional cost per housing unit of the standard set out above is £68 per house and £43 per flat.

Annex A4: Consultation questions on the technical standards

QA4.1	<p>Are the proposed performance requirements for the higher level of the water standard pitched at the right level? Please indicate which of the options below you agree with.</p> <p>a) it goes too far, and should be reduced b) it is about right c) it doesn't go far enough</p>
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QA4.2	<p>If you do not entirely agree, (ie your answer is a) or c), what aspects should be different and why (please provide reasons for your answers, identifying the specific measure by reference number where possible).</p>
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Standard 5: Energy

Introduction

126. We propose no additional national standards for energy. The preferred option is to move towards a Building Regulations only approach. The reasons for this approach are set out in the consultation document. Views have been invited on the preferred option.